



**PRECISION GROUND
BALL SCREWS**



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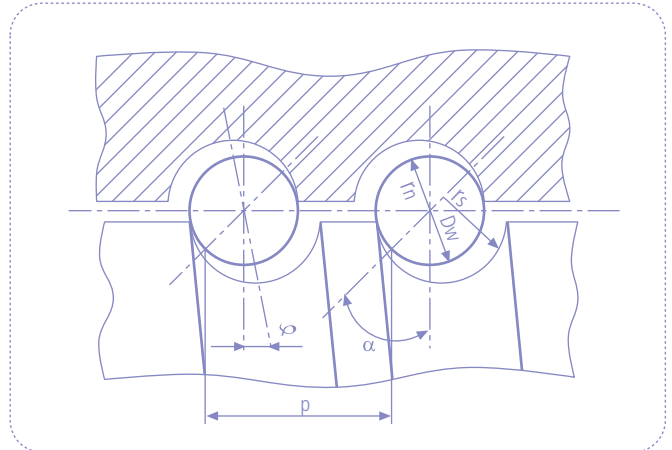


CHARACTERISTICS

THREAD PROFILE

The thread profile is a spiral-shaped groove in the spindle and nut. The two main types of profile are gothic ogive and rounded.

In the gothic profile, the normal cross-section is shaped like a gothic ogive arch. BSG ball screws are manufactured with a carefully-designed thread cross-section, to obtain the maximum load capacity. The two races, spindle and nut, have a gothic ogive thread.



MATERIALS-HARDNESS

BSG ball screws are manufactured with special tempered steels which guarantee maximum performance. Except for particular needs, the threads are only tempered along their threaded length.

BALL RETURN

The ball-recirculation system returns the ball after completing their circuit to the starting point.

The ball circuit is a closed worm- screw race for the balls.

- along a route from thread to thread (internal circuit).
- along more than one route (external circuit).

ELEMENT	MATERIAL - EQUIVALENCES				TREATMENT	HARDNESS HRc
	UNE	DIN	AISI	AFNOR		
SCREW	F-1252	42 Cr mo4	4140	42CD4	INDUCTION TEMPERING	58 ÷ 62
NUT	F-1582	17 Cr Mn Ni Mo4	—	8NCD6	CASEHARDENING HARDENING AND TEMPERING	60 ÷ 62
BALL	—	100Cr 6	52100	100 Cr 6	-	62 ÷ 65

THREAD PROTECTORS OR JOINING ELEMENTS

These are sealing elements in close contact with the ball screw which prevent the entry of foreign matter in the nut or lubricants from leaking.

CALCULATIONS

LOAD CAPACITIES

Dynamic Axial Load Coefficient C_a
[according to DIN-69051 standard]

The dynamic axial load coefficient C_a for a ball screw is a centered axial load which has invariable magnitude and direction which theoretically can support the ball screw for a nominal working life of 10^6 revolutions.

Static Axial Load Coefficient C_{0a}
[according to DIN-69051 standard]

The static axial load coefficient C_{0a} is a static load with an axial, centered affect which corresponds to a total permanent deformation of balls or ball races of 0.0001 x ball diameter in the area of contact of balls or ball races which are subject to the greatest load.

Service Life
[according to DIN-69051 standard]

Service Life L is the number of revolutions which a nut (or screw) makes with respect to the screw (or nut) before the first symptoms of material fatigue appear in one of the two parts or in the surrounding housing. Nominal service life L_{10} for each ball screw separately or for each group of ball screws working under identical conditions, in the service life which is reached with 90% of probabilities.

$$L_{10} = \left(\frac{C_a}{F_m} \right)^3 \cdot 10^6 \quad [\text{revolutions}] \qquad L_h = \frac{L_{10}}{n_m \cdot f_n \cdot 60} \quad [\text{hours}]$$

$$C_a = 0,01 \cdot \sqrt[3]{L_h \cdot F_m^3 \cdot n_m \cdot f_n \cdot 60}$$

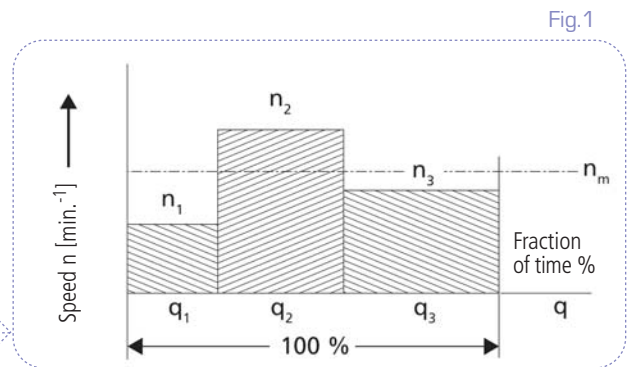
- | | |
|---|---|
| L_{10} = Duration of nominal life (revolutions) | f_n = Use factor |
| L_h = Duration of nominal life (hours) | $f_n = \frac{\text{Screw operation}}{\text{Machine operation}}$ |
| C_a = Dynamic load capacity (N) | $f_n \gg 0.25 \div 0.75$ (in machine tool) |
| F_m = Average load (N) | |
| n_m = Average speed (min-1) | |

VELOCITY AND AVERAGE

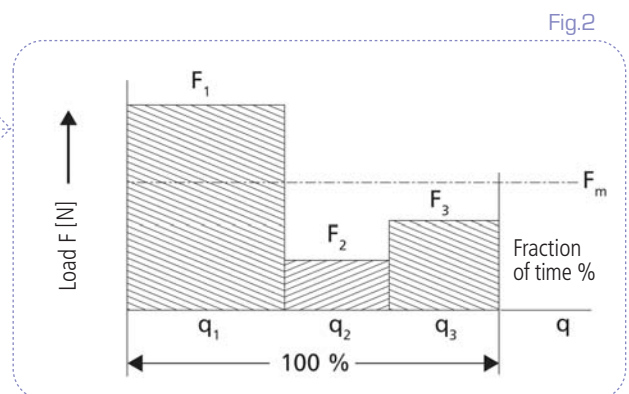
[according to DIN-69051 standard]

In the case of a variable number of revolutions and loads, the equivalent number of revolutions n_m and the equivalent dynamic axial load F_m , must be determined to calculate working life.

- In the case of variable number of revolutions and constant load, proceed in accordance with the following equation to determine the number of equivalent revolutions n_m , [see Fig.1].



- In the case of a variable loads and constant revolutions, the equivalent dynamic axial load F_m , [see Fig.2].



$$F_m = \sqrt[3]{F_1^3 \cdot \frac{q_1}{100} + F_2^3 \cdot \frac{q_2}{100} + \dots [N]}$$

- In the case of variable loads and revolutions, the equivalent dynamic axial load is determined as follows:

$$F_m = \sqrt[3]{F_1^3 \cdot \frac{q_1}{100} \cdot \frac{n_1}{n_m} + F_2^3 \cdot \frac{q_2}{100} \cdot \frac{n_2}{n_m} + \dots [N]}$$

PERFORMANCE

The degree of mechanical performance in ball screws is very high, almost 100%, due to the low friction coefficient in view of the rolling action which exists between the different elements. The chart shows the difference in performance between the ball screw and the ratchet thread screw.

TORQUE - DRIVING POWER

When designing a machine, one of the important factors is the torque required for driving the spindles.

When the turning torque is converted into linear movement, the required turning torque is given by the following equation:

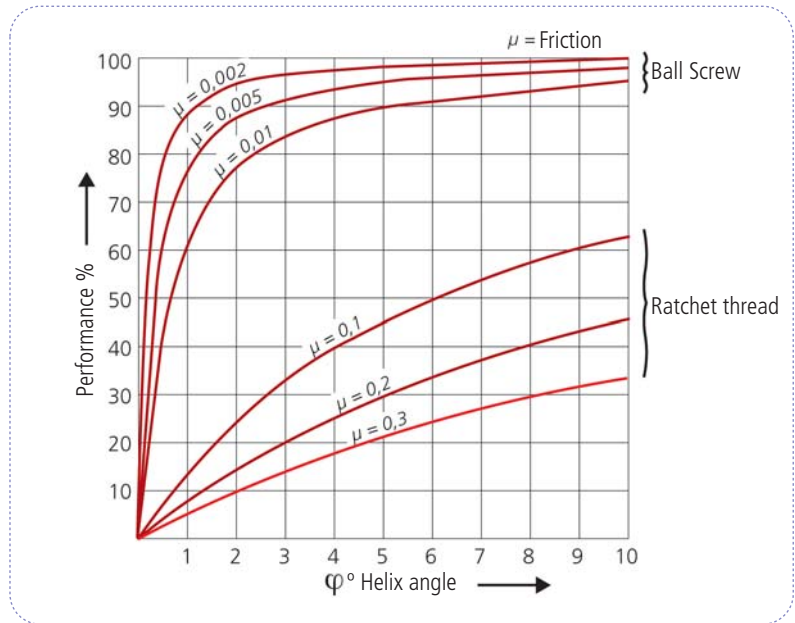
$$T_a = \frac{F_{max} \cdot P \cdot S}{2000 \cdot \pi \cdot \eta} \quad [Nm]$$

When the linear movement is converted into turning torque, the turning torque generated is as follows:

$$T_e = \frac{F_a \cdot P \cdot S \cdot \eta'}{2000 \cdot \pi} \quad [Nm]$$

The required driving power:

$$P_a = \frac{T_a \cdot n}{9550} \quad [Kw]$$



- T_a = Torque required (Nm)
- T_e = Torque produced (Nm)
- F_{max} = Load at maximum point (N)
- F_a = Force applied (N)
- P = Thread pitch (mm)
- S = Safety factor (1.25÷2)
- η = Mechanical performance (0.85)
- η' = Mechanical performance (<0.7)
- P_a = Torque (Kw)
- n = Turning velocity (min.-1)

CRITICAL VELOCITY

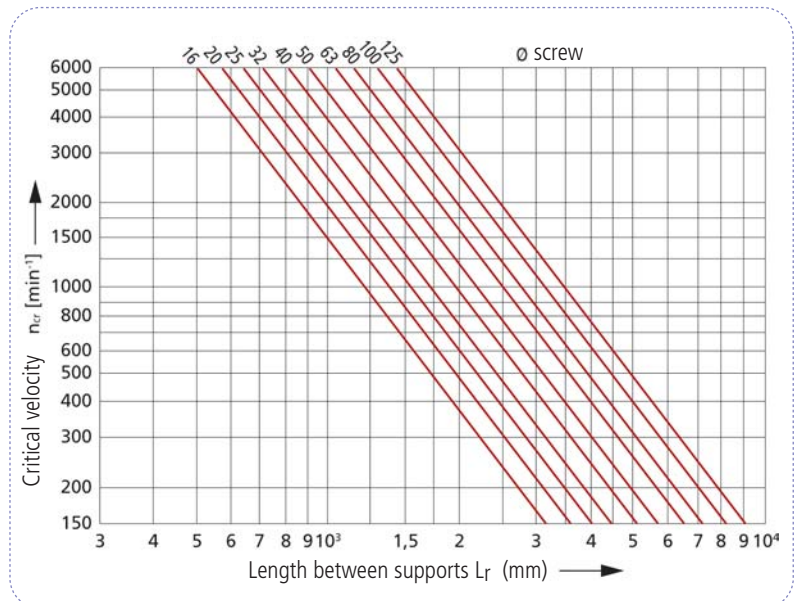
It is necessary to control the control the critical turning velocity in each ball screw application.

The critical velocity of a ball screw is in accordance with its diameter, unsupported screw length and the types of supports. By varying the system of supports, the critical velocity will vary.

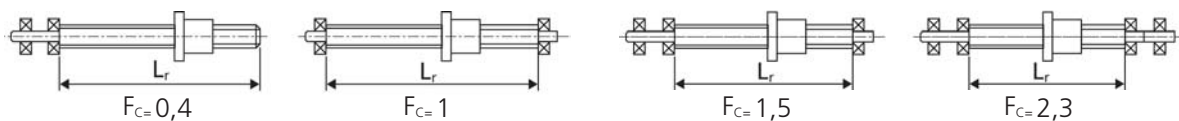
The working velocity must not exceed 80% of the critical velocity.

$$n_{max} = n_{cr} \cdot f_c \cdot 0,8$$

- n_{max} = Maximum velocity (min⁻¹)
- n_{cr} = Critical velocity (min⁻¹)
- f_c = Correction factor according to supports



CRITICAL VELOCITY DIAGRAM

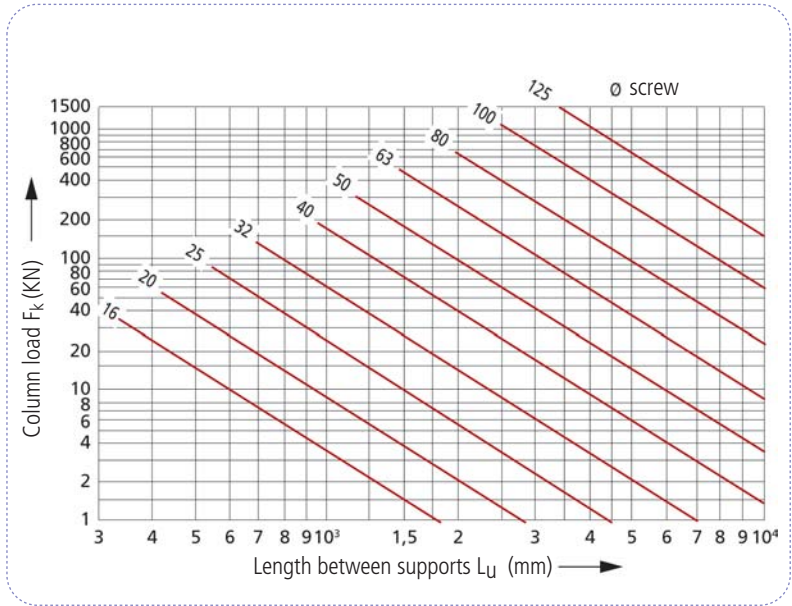


COLUMN LOAD

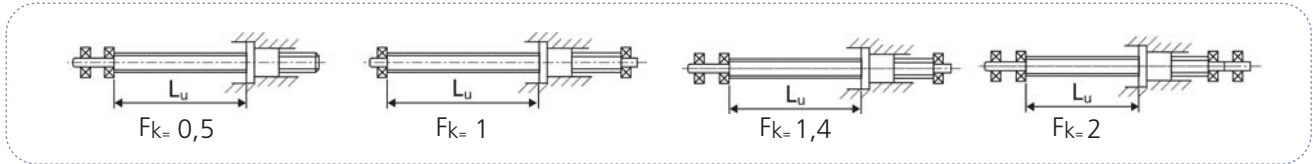
When a compression load acts on a ball screw, this may be subject to deformations. The compression load which a ball screw can bear depends on its diameter, length and the type of supports. By varying the system of supports, the column load capacity will vary. The column load can be determined by using the diagram, to which a correction factor corresponding to the type of support is applied. The maximum permitted column load must not exceed 80% of the column load.

$$F_{max} = F_k \cdot F_k \cdot 0,8$$

- F_{max} = Maximum load permitted $\leq C_{0a}$ (KN)
- F_k = Column load (KN)
- F_k = Correction factor according to supports



COLUMN LOAD DIAGRAM



PRE - LOAD

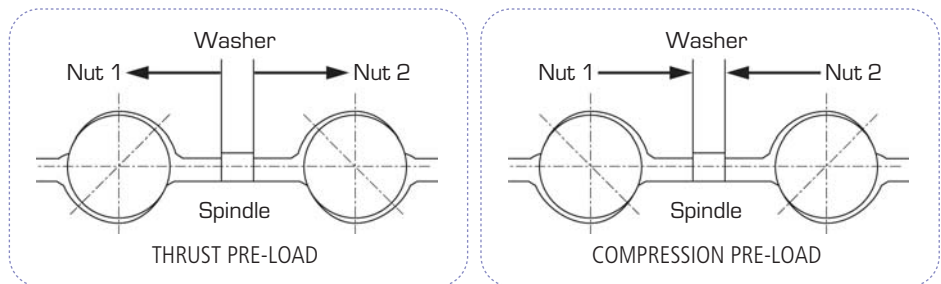
In single-nut ball screws, there is axial play between the balls and rolling points. In many cases it is necessary to eliminate this play to increase positioning accuracy and the rigidity of the unit, by pre-loading two nuts. To avoid a reduction of life, the pre-loading must not be greater than 1/3 of the average working load F_m . If the customer does not indicate otherwise, BSG ball screws are supplied with a standardised pre-load equal to 10% of the dynamic load C_a .

TYPES OF PRE - LOAD

A pre-load can be applied to nuts both in thrust and compression. The thrust pre-load is obtained by inserting a washer between the two nuts, forcing them apart. The increase in the pre-load is obtained by increasing the thickness of the washer. Temperature increases produce a reduction of the pre-load.

In compressing pre-load, the nuts are joined together by inserting a washer.

The lower the washer thickness, the greater the pre-load will be. Temperature increases produce a reduction of the pre-load.



AXIAL RIGIDITY

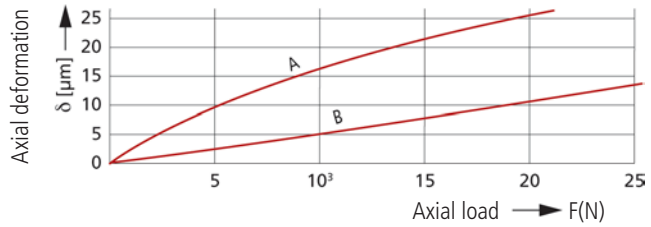
Rigidity is the ratio which exists between the load applied and the deformation produced.

$$R = \frac{F}{\delta}$$

The total rigidity of a ball screw is the sum of different individual rigidities (ball screws, bearing-carrier supports, etc.)

The influence of all these values must be taken into consideration. The axial rigidity of a ball screw consists of the following factors.

- R_H = Screw rigidity
- R_T = Nut rigidity
- R_B = Rigidity of balls in the area of contact
- R_{TB} = Rigidity of the set of nuts



- δ = Deformation produced (μm)
- F = Load applied (N)
- R = Rigidity of the assembly ($\text{N}/\mu\text{m}$)
- A = Without pre-load
- B = With pre-load

SCREW RIGIDITY R_H

This is linear in behaviour and can be calculated according to Hooke's law of elasticity. There are different assembly possibilities which we have grouped into basic types.

- A = Screw section (mm^2)
- E = Elasticity module ($21 \cdot 10^4 \text{ N}/\text{mm}^2$)
- L or L_r = Length between supports (mm)



RIGID MOUNTING AT ONE END

$$R_H = \frac{A \cdot E}{L \cdot 10^3} \quad [\text{N}/\mu\text{m}]$$



RIGID MOUNTING AT BOTH ENDS

$$R_H = \frac{4 \cdot A \cdot E}{L_r \cdot 10^3} \quad [\text{N}/\mu\text{m}]$$

RIGIDITY OF THE NUT - R_T

Due to the different equations for nuts, it is difficult to adopt an exact determination. Basically, this is calculated, as in the case.

RIGIDITY OF BALLS IN THE CONTACT AREA - R_B

This is calculated by means of Hertz's theory of the deformation of contact. These values are indicated in the dimension tables.

RIGIDITY OF THE NUT ASSEMBLY - R_{TB}

This is used to replace R_T or R_B . According to the assembly and the construction of the unit, it results that:

$$R_{TB} \approx 0,6 \div 0,8 \cdot R_B \quad [\text{N}/\mu\text{m}]$$

TOTAL RIGIDITY OF THE BALL SCREW ASSEMBLY - R

$$\frac{1}{R} = \frac{1}{R_H} + \frac{1}{R_T} + \frac{1}{R_B} = \frac{1}{R_H} + \frac{1}{R_{TB}} \quad R = \frac{R_H \cdot R_{TB}}{R_H + R_{TB}} \quad [\text{N}/\mu\text{m}]$$

EXAMPLES OF CALCULATIONS

FIRTS EXAMPLE:

CALCULATION OF SERVICE LIFE

Ball screw $D_p = 52.1$ mm
Pitch = 10 mm

$q_1 = 10\%$	$n_1 = 20 \text{ min}^{-1}$	$F_1 = 45000 \text{ N}$
$q_2 = 40\%$	$n_2 = 40 \text{ min}^{-1}$	$F_2 = 30000 \text{ N}$
$q_3 = 50\%$	$n_3 = 100 \text{ min}^{-1}$	$F_3 = 10000 \text{ N}$

The service life of the machine must be 30,000 hours for an operational life of the screw of 60%

AVERAGE REVOLUTIONS:

By means of the formula we have: $n_m = 20 \cdot \frac{10}{100} + 40 \cdot \frac{40}{100} + 100 \cdot \frac{50}{100} = 68 \text{ min}^{-1}$ $n_m = n_1 \cdot \frac{q_1}{100} + n_2 \cdot \frac{q_2}{100} + n_3 \cdot \frac{q_3}{100} = \dots \text{ min}^{-1}$

AVERAGE LOAD:

As the load and revolutions are variable we apply the formula and have:

$$F_m = \sqrt[3]{45000^3 \cdot \frac{20}{68} \cdot \frac{10}{100} + 30000^3 \cdot \frac{40}{68} \cdot \frac{40}{100} + 10000^3 \cdot \frac{100}{68} \cdot \frac{50}{100}} = 9026 \text{ N}$$

$$F_m = \sqrt[3]{F_1^3 \cdot \frac{n_1}{n_m} \cdot \frac{q_1}{100} + F_2^3 \cdot \frac{n_2}{n_m} \cdot \frac{q_2}{100} + \dots \text{ in N}}$$

SERVICE LIFE L_{10} IN NUMBER OF REVOLUTIONS:

We have: $L_h = \frac{L_{10}}{n_m \cdot f_n \cdot 60} \text{ [h]}$

Hours of machine operation = $L_h \cdot \frac{\text{Machine operation Life}}{\text{Screw Operation life}}$

$$L_h = 30000 \cdot \frac{60}{100} = 18000 \text{ hours} \quad L_{10} = 18000 \cdot 60 \cdot 68 = 73,44 \times 10^6 \text{ revolutions}$$

DYNAMIC LOAD CAPACITY:

$$L_{10} = \left(\frac{C_a}{F_m}\right)^3 \cdot 10^6 \quad \text{where} \quad C_a = F_m \cdot \sqrt[3]{\frac{L_{10}}{10^6}}$$

$$C_a = 9026 \cdot \sqrt[3]{\frac{73,44 \cdot 10^6}{10^6}} = 37798 \text{ N} \quad L_{10} = \left(\frac{C_a}{F_m}\right)^3 \cdot 10^6$$

By referring to the technical data cards we can see that a screw of D_p 52.1 mm is required. Pitch=10 with 3 circuits with a dynamic load capacity of 42600 N. $L_{10} = \left(\frac{42600}{9026}\right)^3 \cdot 10^6 = 105,13 \cdot 10^6 \text{ revolutions}$

Chek: Once the screw has been selected, we calculate life in hours with respect to the dynamic load capacity of the selected screw. $L_h = \frac{105,13 \cdot 10^6}{60 \cdot 68} = 26000 \text{ hours}$ $L_h = \frac{L_{10}}{60 \cdot n_m}$

As can be seen, the life in hours of the selected screw is greater than the required life in hours.

SECOND EXAMPLE:

CALCULATION OF RIGIDITY

Primitive diameter $D_p = 52,1$ mm
Pitch $P = 10$ mm
Number of circuits $c = 3$
Dynamic Load $C_a = 42600$ N
Average Load $F_m = 14201$ N
Length between supports $L_f = 1100$ mm

RIGIDITY IN THE AREA OF CONTACT OF THE BALLS

The technical data cards show a value of

RIGIDITY OF THE NUTS ASSEMBLY

where $R_{TB} = 0,6 \div 0,8 R_B$ $R_{TB} = 0,8 \cdot 970 = 776 \text{ N}/\mu\text{m}$

RIGIDITY OF THE SCREW BETWEEN SUPPORTS

Rigid mounting at both ends. $R_H = \frac{4 \cdot A \cdot E}{L_r \cdot 10^3} \text{ [N}/\mu\text{m}]$ $R_H = \frac{4 \cdot 1963 \cdot 21 \cdot 10^4}{1100 \cdot 10^3} = 1499 \text{ N}/\mu\text{m}$

TOTAL RIGIDITY

$$R = \frac{R_H \cdot R_{TB}}{R_H + R_{TB}} \text{ [N}/\mu\text{m}] \quad R = \frac{1499 \cdot 776}{1499 + 776} = 511 \text{ N}/\mu\text{m}$$



TOLERANCES

PITCH DEVIATION TOLERANCES

(according to DIN-69051 standard)

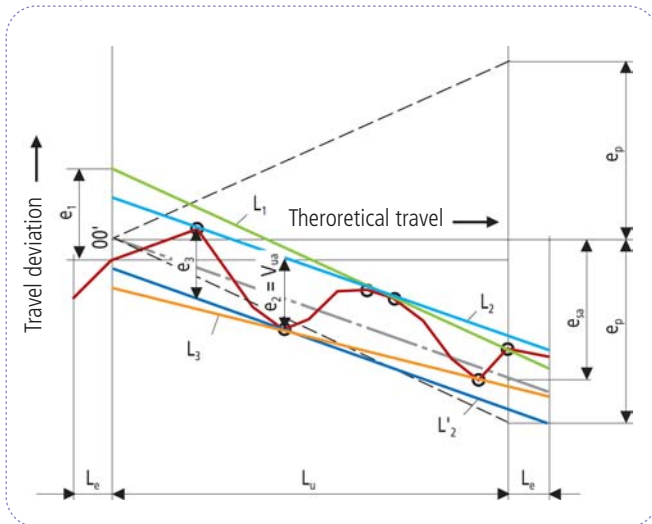
Tolerance categories 1, 3, 5, 7 and 10 have been envisaged to correspond to the requirements of each case (see Table V 300p). In accordance with functional requirements, a difference is drawn between positioning or transport ball screws.

- POSITIONING BALL SCREW is a thrust screw which with its travel deviation arrangement can measure axial travels indirectly by means of the turning angle.

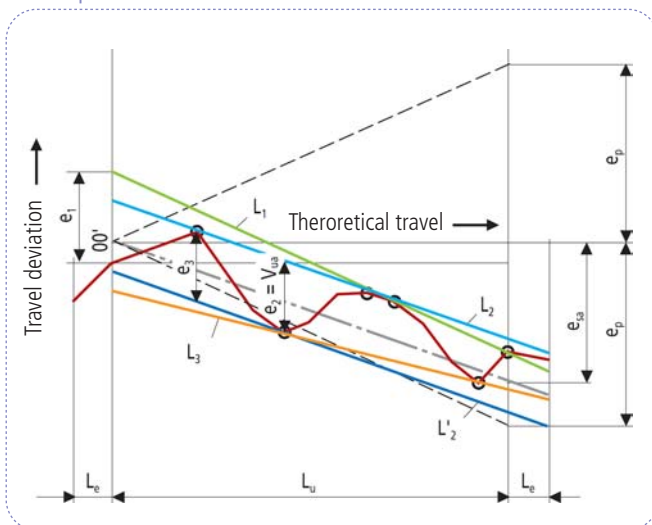
- TRANSPORTER BALL SCREW is a thrust screw arranged with its travel deviations so that for the measurement of the axial movement a separate measuring system is required and must be independent of the turning angle.

The determination of the travel oscillation tolerance within $V_{2\pi p}$ is made by means of 9 measurements ($8 \times 45^\circ$) for each turn or in a continuous manner on an initial pitch in the centre and at the end of the working length, whenever this control is especially agreed.

Graph 1



Graph 2



ANALYSIS OF MEASUREMENT DIAGRAMS

In order to determine the average effective deviation within the working travel, the mathematical procedure is exact according to the definition. In practice, the graphical, rapid procedure is recommended for analysis as the customary method of approach.

MATHEMATICAL PROCEDURE

The straight line of the average deviation of the effective travel is given by the general equation:

$$y = a + bx \quad \text{with} \quad a = \frac{\sum X_i^2 \cdot \sum Y_i - \sum X_i \cdot \sum X_i Y_i}{n \cdot \sum X_i^2 - (\sum X_i)^2}$$

and

$$\text{where} \quad b = \frac{n \cdot \sum X_i Y_i - \sum X_i \cdot \sum Y_i}{n \cdot \sum X_i^2 - (\sum X_i)^2}$$

- x = turning angle (theoretical or nominal travel).
- x_i = turning angle (travel) of the theoretical or nominal travel.
- y = deviation of the course (travel) of the theoretical or nominal travel.
- y_i = deviation of the course (travel) of the theoretical or nominal travel for the turning angle (or travel) of the measuring point i.
- n = number of measuring points.

GRAPHICAL PROCEDURE

The determination of the average deviation of the effective travel, based on the travel deviation diagram is done as follows (see graphs 1 and 2).

- a - One or two straight lines (L_1, L_2, \dots) are drawn which must touch at least two points above the effective travel deviation curve, repeating this operation for the lower points. (L_3, \dots).
- b - The maximum distance (e_1, e_2, e_3, \dots) between straight lines L_1, L_2 and L_3 of the effective travel deviation curve is determined in each case by choosing the minimum distance between them. On graphs 1 and 2 this will be distance e_2 .
- c - Through this point of the minimum distance and in a parallel manner to the corresponding straight line, another straight line is drawn. Here it will be L'_2 parallel to L_2 .
- d - Now we have the effective average deviation e_{Sa} or e_{Oa} as a central line between these two parallel straight lines (L_2, L'_2) and the width of the travel oscillation band V_{ua} on the working travel L_u as the distance from the parallel lines.

$$L_e = D_p$$

PITCH DEVIATION TOLERANCES

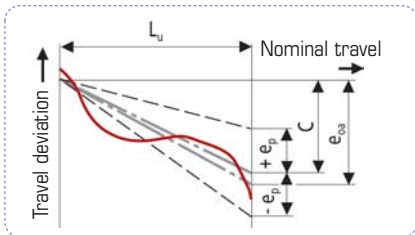
[according to DIN-69051 standard]

Positioning Ball screws		e_p in μm for Tolerance class				
L_u		1	3	5	7	10
More than:	Up to					
-	315	6	12	23	-	-
315	400	7	13	25	-	-
400	500	8	15	27	-	-
500	630	9	16	30	-	-
630	800	10	18	35	-	-
800	1000	11	21	40	-	-
1000	1250	13	24	46	-	-
1250	1600	15	29	54	-	-
1600	2000	18	35	65	-	-
2000	2500	22	41	77	-	-
2500	3150	26	50	93	-	-
3150	4000	32	62	115	-	-
4000	5000	-	76	140	-	-
5000	6300	-	-	170	-	-

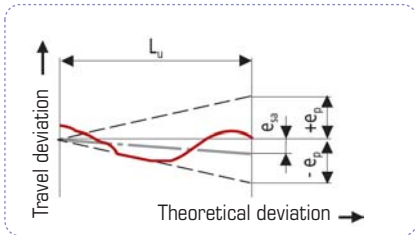
Positioning Ball screws		V_{ua} in μm for Tolerance class				
L_u		1	3	5	7	10
More than:	Up to					
-	315	6	12	23	-	-
315	400	6	12	25	-	-
400	500	7	13	26	-	-
500	630	7	14	29	-	-
630	800	8	16	31	-	-
800	1000	9	17	35	-	-
1000	1250	10	19	39	-	-
1250	1600	11	22	44	-	-
1600	2000	13	25	51	-	-
2000	2500	15	29	59	-	-
2500	3150	17	34	69	-	-
3150	4000	21	41	82	-	-
4000	5000	-	49	99	-	-
5000	6300	-	-	119	-	-

Average effective travel deviation on working travel L_u

- a) e_{oa} with respect to the nominal travel
- b) e_{sa} with respect to the theoretical travel

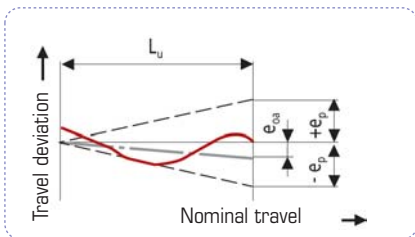


C = Compensation according to user's indications

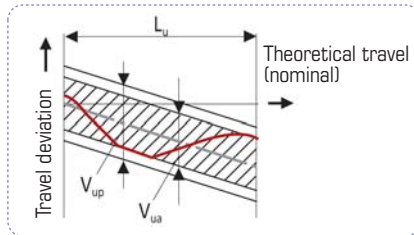


Transporter Ball screws		e_p in μm for Tolerance class				
		1	3	5	7	10
$e_p = 2 \frac{L_u}{300} V_{300p}$						

Average effective travel deviation e_{oa} on working travel L_u

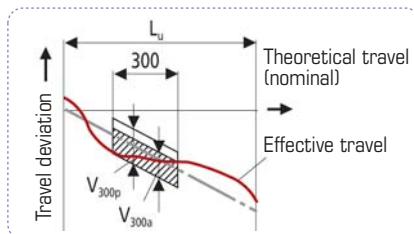


Travel oscillation V_{ua} on working travel L_u



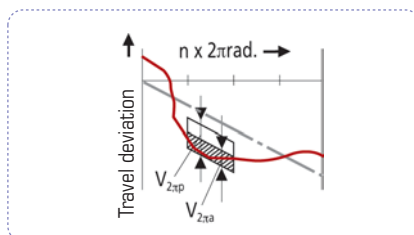
Transporter an Positioning Ball screws		V_{300p} in μm for Tolerance class				
		1	3	5	7	10
		6	12	23	52	210

Travel oscillation V_{300a} over 300mm axial travel



Positioning Ball screws		$V_{2\pi p}$ in μm for Tolerance class				
		1	3	5	7	10
		4	6	8	-	-

Travel oscillation $V_{3\pi a}$ within 2π rad. (1 rum)



TURNING TORQUE TOLERANCE

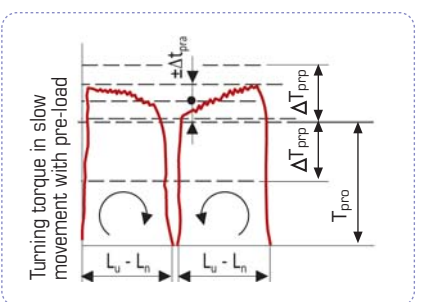
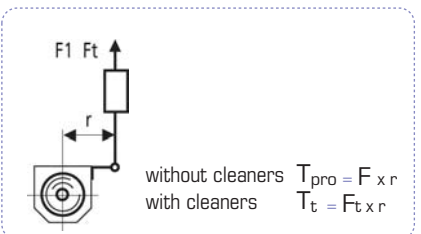
Transporter an Positioning Ball screws

		for $\frac{L_u}{D_p} \leq 40; L_u \leq 4000$				
T_{pr0} in N_m		ΔT_{prp} in % of T_{pr0} for Tolerance class				
More than:	Up to	1	3	5	7	10
0,2	0,4	35	40	50	-	-
0,4	0,6	25	40	40	-	-
0,6	1,0	25	30	35	40	-
1,0	2,5	20	25	30	35	-
2,5	6,3	15	20	25	30	-
6,3	10,0	-	15	20	30	-

		for $\frac{L_u}{D_p} \leq 60; L_u \leq 4000$				
T_{pr0} in N_m		ΔT_{prp} in % of T_{pr0} for Tolerance class				
More than:	Up to	1	3	5	7	10
0,2	0,4	40	50	60	-	-
0,4	0,6	33	40	45	-	-
0,6	1,0	30	35	40	45	-
1,0	2,5	25	30	35	40	-
2,5	6,3	20	25	30	35	-
6,3	10,0	-	20	25	35	-

		for $L_u > 4000$				
T_{pr0} in N_m		ΔT_{prp} in % of T_{pr0} for Tolerance class				
More than:	Up to	1	3	5	7	10
-	0,6	Not determined				
0,6	1,0	-	40	45	50	-
1,0	2,5	-	35	40	45	-
2,5	6,3	-	30	35	40	-
6,3	10,0	-	25	30	35	-

Limit deviation ΔT_{prp} for turning par in slow movement T_{pr0} with pre-load.



$L_u = L_n$ = working travel minus nut length

The test is carried out with a number of r.p.m. of the screw in 100 mm^{-1} in both turning directions. It will be lubricated with oil with a viscosity type 150 VG 100.

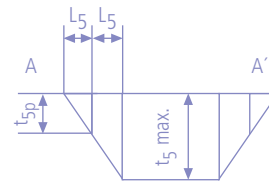
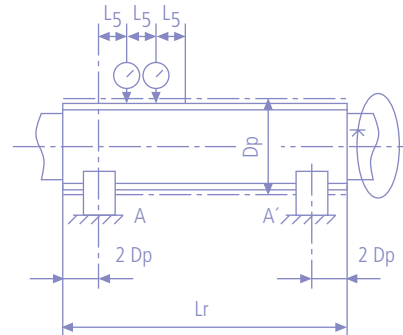
POSITION TOLERANCES

[according to DIN-69051 standard]

Transporter an Positioning Ball screws

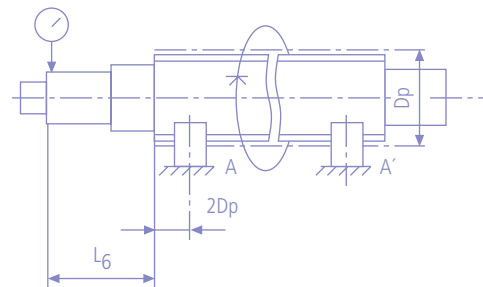
Dp			t _{5p} in µm according to Tolerance class				
Morethan	Up to	L5mm	1	3	5	7	10
6	12	80					
12	25	160					
25	50	315	20	25	32	40	80
50	100	630					
100	200	1250					

L _r /Dp		t ₅ max (µm) for L _r ≥ 4L ₅ according to Tolerance class				
Morethan	Up to	1	3	5	7	10
	40	40	50	64	80	160
40	60	60	75	96	120	240
60	80	100	125	160	200	400
80	100	160	200	256	320	640



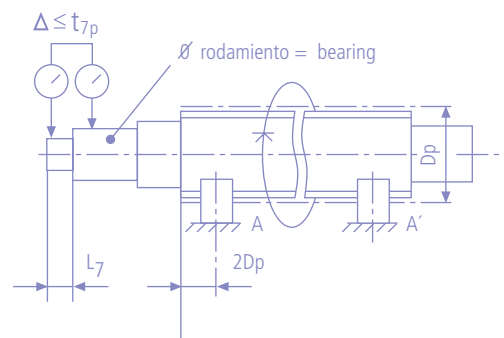
Transporter an Positioning Ball screws

Dp			t _{6p} in µm for L ₆ ≤ L according to Tolerance class				
Morethan	Up to	L	1	3	5	7	10
6	20	80	10	12	20	40	63
20	50	125	12	16	25	50	80
50	125	200	16	20	32	63	100
125	200	315	-	25	40	80	125



Transporter an Positioning Ball screws

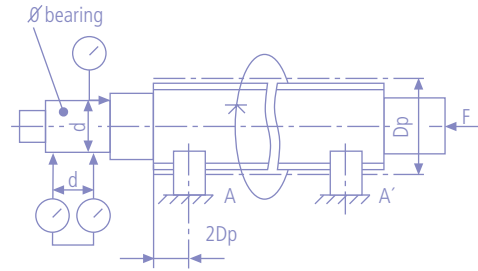
Dp			t _{7p} in µm for L ₇ ≤ L according to Tolerance class				
Morethan	Up to	L	1	3	5	7	10
6	20	80	5	6	8	12	16
20	50	125	6	8	10	16	20
50	125	200	8	10	12	20	25
125	200	315	-	12	16	25	32



■ for L₇ > L is applied $\leq t_{7p} \frac{L_7}{L}$

Transporter an Positioning Ball screws

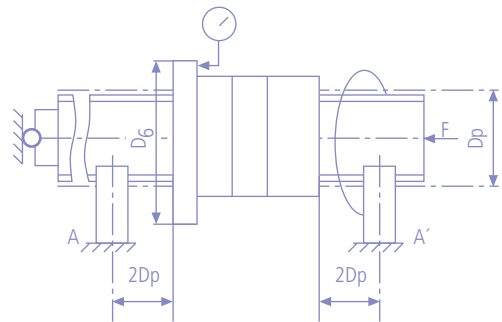
D _p		t _{8p} in μm according to Tolerance class				
Morethan	Up to	1	3	5	7	10
6	63	3	4	5	6	10
63	125	4	5	6	8	12
125	200	-	6	8	10	16



Δ of deviation from the straight line

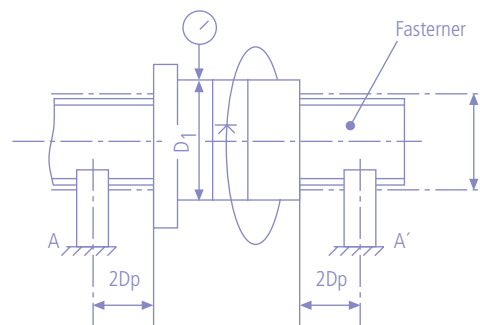
Transporter an Positioning Ball screws

D ₆		t _{9p} in μm according to Tolerance class				
Morethan	Up to	1	3	5	7	10
16	32	10	12	16	20	-
32	63	12	16	20	25	-
63	125	16	20	25	32	-
125	250	20	25	32	40	-
250	500	-	32	40	50	-



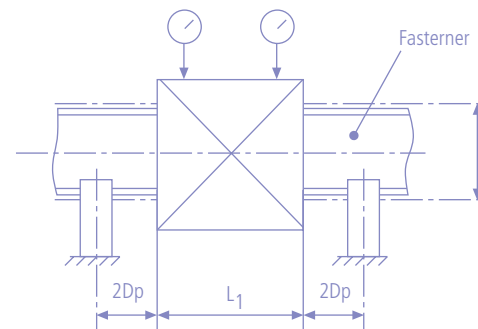
Transporter an Positioning Ball screws

D ₁		t _{10p} in μm according to Tolerance class				
Morethan	Up to	1	3	5	7	10
16	32	10	12	16	20	-
32	63	12	16	20	25	-
63	125	16	20	25	32	-
125	250	20	25	32	40	-
250	500	-	32	40	50	-



Transporter an Positioning Ball screws

t _{11p} in μm 100 mm [accumulated] according to Tolerance class				
1	3	5	7	10
16	20	25	32	-





MAINTENANCE AND HANDLING

LUBRICATION

Ball screws must be lubricated with oil or grease, it being possible to use the same qualities of lubricants which are used in ball bearings.

To choose the appropriate lubricant, working conditions should be taken into consideration. Due to axial movement between the nut and the screw, lubricant is lost and so lubrication should be applied constantly. Graphite or molybdenum disulfate additives should not be used.

LUBRICATION WITH OIL

The influence of temperature is of great importance because longitudinal expansion has an influence on the precision of the ball screw. The necessary viscosity depends on the number of revolutions, the temperature and the load (see DIN 51517 and 51519 and ISO 3448).

LUBRICATION WITH GREASE

Lubrication with grease has the advantage of not needing another greasing until after 500 to 1000 hours of work. This means that in many cases a lubrication system can be avoided. For the normal working of a ballscrew it is convenient to use a grease with a consistency of NGLI 2 DIN 51818.

STORAGE

As these are precision products they must be placed in clean, dry places, well supported at several points along their length and in their original packaging until the moment they are used.

BSG ball screws must be handled with extreme care as they are sensitive to knocks and pollution. Before shipment, they are protected against corrosion with a rust inhibitor and special wrapping.

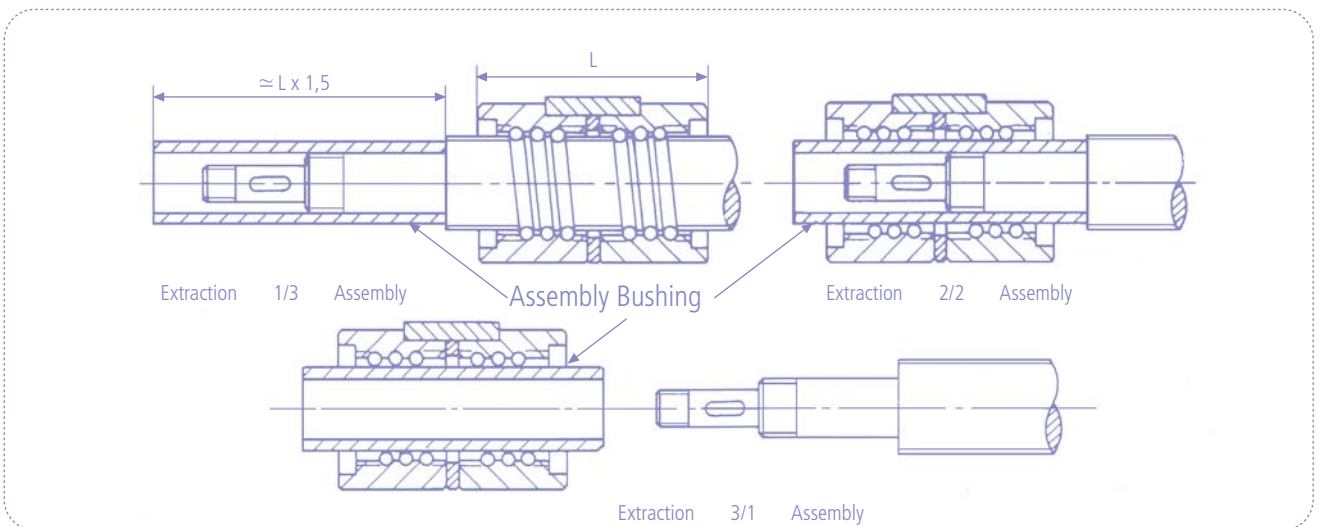
TRANSPORT - ASSEMBLY

When handling the ball screws between the storeroom and the place where they are to be assembled, avoid sharp movements and false support positions which might cause sagging. Housing for mounting nuts and the ends of the screw nuts be completely clean and free of dust, paint and other impurities.

Special attention should be paid to mounting the ball screw in the machine, by checking the alignment of the supports of bearings and the nut.

DISASSEMBLY OF NUTS

When, due to needs of mounting on a machine or for any other special motive, it is necessary to disassemble the screw nuts, this can be done with the aid of a tube for extracting and later assembly, as is shown in the diagram.



PRODUCTS

SINGLE NUT FLANGED - AXIAL DEFLECTOR



DOUBLE NUT FLANGED - AXIAL DEFLECTOR



SINGLE NUT FLANGED - RADIAL DEFLECTOR

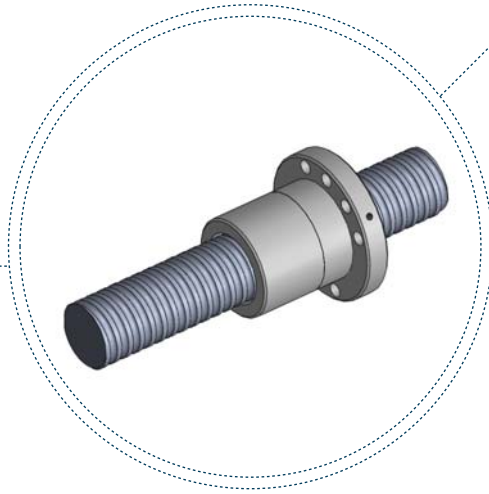


DOUBLE NUT FLANGED - RADIAL DEFLECTOR



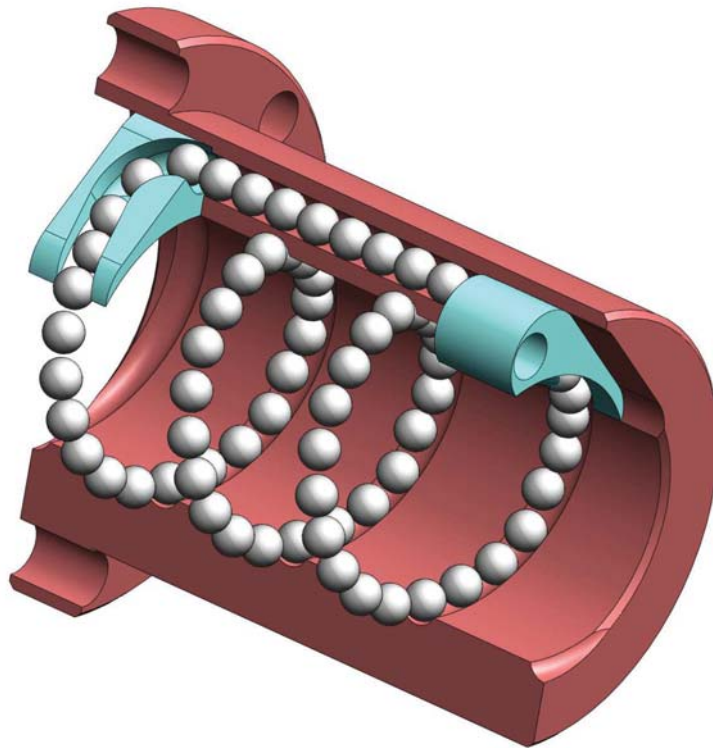
ROTATING NUTS





FLANGED SINGLE NUT PRELOADED

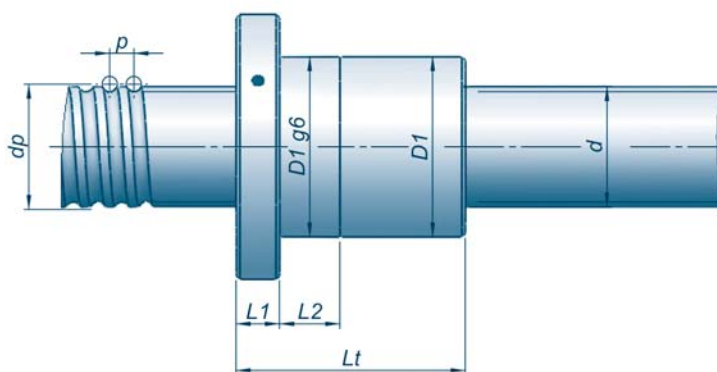
A X I A L D E F L E C T O R S



SNF axial

SINGLE NUT FLANGED

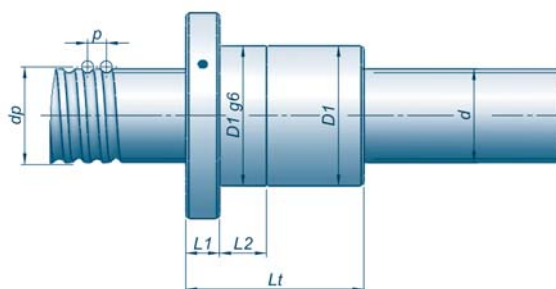
AXIAL DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)	
SNF 050x20-08-3 -A	50	20	7,938	3	177.338	78.152	
SNF 050x20-08-4 -A				4	236.451	100.089	
SNF 050x20-08-5 -A				5	295.564	121.263	
SNF 050x20-08-6 -A				6	354.676	141.848	
SNF 063x20-10-3 -A	63	20	9,525	3	293.568	119.438	
SNF 063x20-10-4 -A				4	391.424	152.965	
SNF 063x20-10-5 -A				5	489.280	185.325	
SNF 063x20-10-6 -A			6	587.136	216.785		
SNF 063x20-13-3 -A			12,7	3	449.222	196.136	
SNF 063x20-13-4 -A				4	598.962	251.191	
SNF 063x20-13-5 -A		5		748.703	304.332		
SNF 063x20-13-6 -A		6	898.443	355.995			
SNF 063x30-10-2 -A		30	30	9,525	2	204.390	86.931
SNF 063x30-10-3 -A					3	306.585	123.201
SNF 063x30-10-5 -A				5	510.975	191.162	
SNF 063x30-13-2 -A			12,7	2	298.571	138.395	
SNF 063x30-13-3 -A	3			447.857	196.136		
SNF 063x30-13-5 -A	5			746.428	304.332		
SNF 063x40-10-3 -A	40	40	9,525	3	304.176	123.201	
SNF 063x40-10-4 -A			4	405.568	157.783		
SNF 063x40-13-3 -A		12,7	3	444.439	196.136		
SNF 063x40-13-4 -A			4	592.586	251.191		

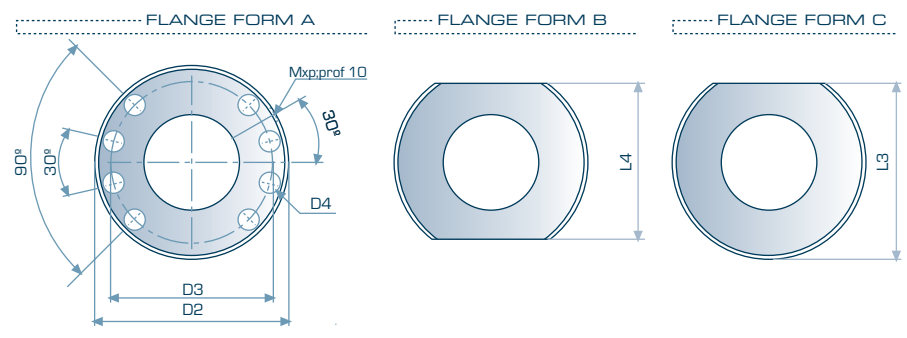
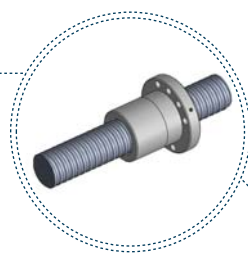
SINGLE NUT FLANGED

AXIAL DEFLECTORS



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)		
SNF 080x20-10-3 -A	80	20	9,525	3	383.433	134.470		
SNF 080x20-10-4 -A				4	511.244	172.216		
SNF 080x20-10-5 -A				5	639.055	208.649		
SNF 080x20-10-6 -A				6	766.865	244.069		
SNF 080x20-13-3 -A				12,7	3	572.587	219.612	
SNF 080x20-13-4 -A					4	763.449	281.257	
SNF 080x20-13-5 -A			5		954.311	340.757		
SNF 080x20-13-6 -A			6		1.145.173	398.604		
SNF 080x25-10-3 -A			25		9,525	3	382.805	134.470
SNF 080x25-10-4 -A						4	510.407	172.216
SNF 080x25-10-5 -A				5		638.008	208.649	
SNF 080x25-10-6 -A				6		765.610	244.069	
SNF 080x25-13-3 -A		12,7		3		571.671	219.612	
SNF 080x25-13-4 -A				4		762.228	281.257	
SNF 080x25-13-5 -A				5	952.785	340.757		
SNF 080x25-13-6 -A				6	1.143.342	398.604		
SNF 080x25-16-4 -A				15,875	3	785.813	319.976	
SNF 080x25-16-5 -A					4	1.047.751	409.793	
SNF 080x25-16-6 -A		5			1.309.689	496.486		
SNF 080x25-16-6 -A		6			1.571.627	580.768		
SNF 080x30-10-3 -A		30	9,525		3	382.042	134.470	
SNF 080x30-10-4 -A					4	509.389	172.216	
SNF 080x30-10-5 -A				5	636.737	208.649		
SNF 080x30-10-6 -A				6	764.084	244.069		
SNF 080x30-13-3 -A				12,7	3	570.558	219.612	
SNF 080x30-13-4 -A					4	760.745	281.257	
SNF 080x30-13-5 -A			5		950.931	340.757		
SNF 080x30-13-6 -A			6		1.141.117	398.604		
SNF 080x30-16-3 -A			15,875		3	784.319	319.976	
SNF 080x30-16-4 -A					4	1.045.759	409.793	
SNF 080x30-16-5 -A				5	1.307.198	496.486		
SNF 080x30-16-6 -A				6	1.568.638	580.768		
SNF 080x40-10-3 -A		40		9,525	3	380.120	134.470	
SNF 080x40-10-4 -A					4	506.827	172.216	
SNF 080x40-10-5 -A			5		633.534	208.649		
SNF 080x40-10-6 -A			6		760.241	244.069		
SNF 080x40-13-3 -A			12,7		3	596.143	226.872	
SNF 080x40-13-4 -A					4	794.857	290.555	
SNF 080x40-13-5 -A				5	993.571	352.023		
SNF 080x40-13-6 -A				6	1.192.285	411.782		
SNF 080x40-16-3 -A				15,875	3	829.338	333.173	
SNF 080x40-16-4 -A					4	1.105.784	426.694	
SNF 080x40-16-5 -A			5		1.382.230	516.963		
SNF 080x40-16-6 -A			6		1.658.676	604.721		

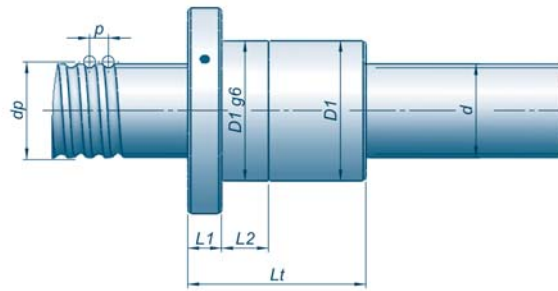
Ca: Dynamic Load Coa: Static Load Nc: Circuit numbers



D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxpr	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
130	180	155	17,5	8	M8x1	25	25	157,5	135	230
130	180	155	17,5	8	M8x1	25	25	157,5	135	270
130	180	155	17,5	8	M8x1	25	25	157,5	135	310
130	180	155	17,5	8	M8x1	25	25	157,5	135	350
140	190	165	17,5	8	M8x1	25	25	167,5	145	240
140	190	165	17,5	8	M8x1	25	25	167,5	145	280
140	190	165	17,5	8	M8x1	25	25	167,5	145	320
140	190	165	17,5	8	M8x1	25	25	167,5	145	360
130	180	155	17,5	8	M8x1	30	30	157,5	135	270
130	180	155	17,5	8	M8x1	30	30	157,5	135	320
130	180	155	17,5	8	M8x1	30	30	157,5	135	370
130	180	155	17,5	8	M8x1	30	30	157,5	135	420
140	190	165	17,5	8	M8x1	30	30	167,5	145	280
140	190	165	17,5	8	M8x1	30	30	167,5	145	330
140	190	165	17,5	8	M8x1	30	30	167,5	145	380
140	190	165	17,5	8	M8x1	30	30	167,5	145	430
150	200	175	17,5	8	M8x1	30	30	177,5	155	285
150	200	175	17,5	8	M8x1	30	30	177,5	155	335
150	200	175	17,5	8	M8x1	30	30	177,5	155	385
150	200	175	17,5	8	M8x1	30	30	177,5	155	435
130	180	155	17,5	8	M8x1	35	35	157,5	135	300
130	180	155	17,5	8	M8x1	35	35	157,5	135	360
130	180	155	17,5	8	M8x1	35	35	157,5	135	420
130	180	155	17,5	8	M8x1	35	35	157,5	135	480
140	190	165	17,5	8	M8x1	35	35	167,5	145	310
140	190	165	17,5	8	M8x1	35	35	167,5	145	370
140	190	165	17,5	8	M8x1	35	35	167,5	145	430
140	190	165	17,5	8	M8x1	35	35	167,5	145	490
150	200	175	17,5	8	M8x1	35	35	177,5	155	315
150	200	175	17,5	8	M8x1	35	35	177,5	155	375
150	200	175	17,5	8	M8x1	35	35	177,5	155	435
150	200	175	17,5	8	M8x1	35	35	177,5	155	495
130	180	155	17,5	8	M8x1	40	40	157,5	135	380
130	180	155	17,5	8	M8x1	40	40	157,5	135	460
130	180	155	17,5	8	M8x1	40	40	157,5	135	540
130	180	155	17,5	8	M8x1	40	40	157,5	135	620
140	190	165	17,5	8	M8x1	40	40	167,5	145	390
140	190	165	17,5	8	M8x1	40	40	167,5	145	470
140	190	165	17,5	8	M8x1	40	40	167,5	145	550
140	190	165	17,5	8	M8x1	40	40	167,5	145	630
150	200	175	17,5	8	M8x1	40	40	177,5	155	395
150	200	175	17,5	8	M8x1	40	40	177,5	155	475
150	200	175	17,5	8	M8x1	40	40	177,5	155	555
150	200	175	17,5	8	M8x1	40	40	177,5	155	635

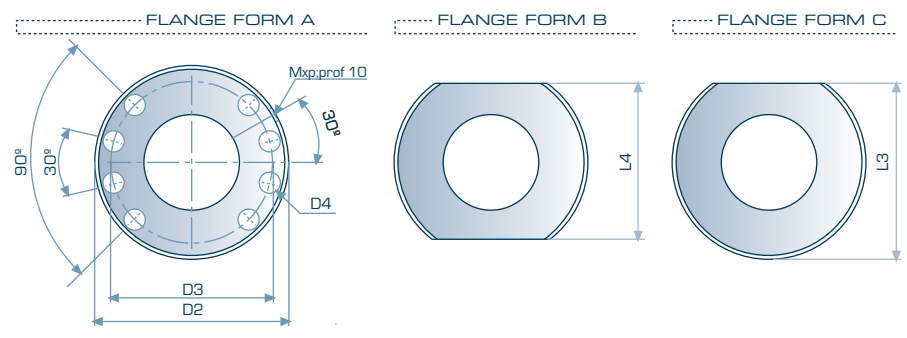
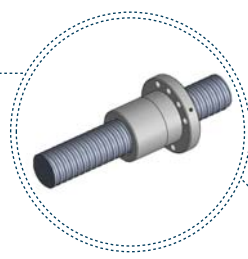
SINGLE NUT FLANGED

AXIAL DEFLECTORS



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)		
SNF 100x20-10-3 -A	100	20	9,525	3	487.453	148.780		
SNF 100x20-10-4 -A				4	649.937	190.543		
SNF 100x20-10-5 -A				5	812.421	230.853		
SNF 100x20-10-6 -A				6	974.905	270.042		
SNF 100x20-13-3 -A				12,7	3	724.623	243.918	
SNF 100x20-13-4 -A					4	966.164	312.386	
SNF 100x20-13-5 -A			5		1.207.705	378.472		
SNF 100x20-13-6 -A			6		1.449.246	442.721		
SNF 100x25-10-3 -A			25		9,525	3	486.933	148.780
SNF 100x25-10-4 -A						4	649.244	190.543
SNF 100x25-10-5 -A				5		811.555	230.853	
SNF 100x25-10-6 -A				6		973.866	270.042	
SNF 100x25-13-3 -A		12,7		3		723.865	243.918	
SNF 100x25-13-4 -A				4		965.153	312.386	
SNF 100x25-13-5 -A				5	1.206.442	378.472		
SNF 100x25-13-6 -A				6	1.447.730	442.721		
SNF 100x25-16-3 -A				15,875	3	997.857	358.945	
SNF 100x25-16-4 -A					4	1.330.476	459.701	
SNF 100x25-16-5 -A		5			1.663.095	556.952		
SNF 100x25-16-6 -A		6			1.995.715	651.499		
SNF 100x30-10-2 -A		30	9,525		2	324.200	104.980	
SNF 100x30-10-3 -A					3	486.300	148.780	
SNF 100x30-10-5 -A				5	810.499	230.853		
SNF 100x30-13-2 -A				12,7	2	481.961	172.110	
SNF 100x30-13-3 -A					3	722.942	243.918	
SNF 100x30-13-5 -A					5	1.204.903	378.472	
SNF 100x30-16-2 -A			15,875		2	664.406	253.273	
SNF 100x30-16-3 -A					3	996.608	358.945	
SNF 100x30-16-5 -A					5	1.661.014	556.952	
SNF 100x40-10-3 -A				40	9,525	3	484.699	148.780
SNF 100x40-10-4 -A	4					646.265	190.543	
SNF 100x40-13-3 -A	12,7					3	720.607	243.918
SNF 100x40-13-4 -A		4	960.809			312.386		
SNF 100x40-16-3 -A		15,875	3			993.450	358.945	
SNF 100x40-16-4 -A			4			1.324.600	459.701	
SNF 100x50-10-2 -A			50		9,525	2	321.776	104.980
SNF 100x50-10-3 -A						3	482.664	148.780
SNF 100x50-13-2 -A	12,7					2	497.563	176.669
SNF 100x50-13-3 -A						3	746.344	250.380
SNF 100x50-16-2 -A		15,875				2	692.603	261.647
SNF 100x50-16-3 -A						3	1.038.905	370.812
SNF 100x60-10-2 -A				60	9,525	2	320.141	104.980
SNF 100x60-10-3 -A						3	480.211	148.780
SNF 100x60-13-2 -A	12,7					2	495.081	176.669
SNF 100x60-13-3 -A						3	742.622	250.380
SNF 100x60-16-2 -A		15,875				2	689.212	261.647
SNF 100x60-16-3 -A						3	1.033.819	370.812

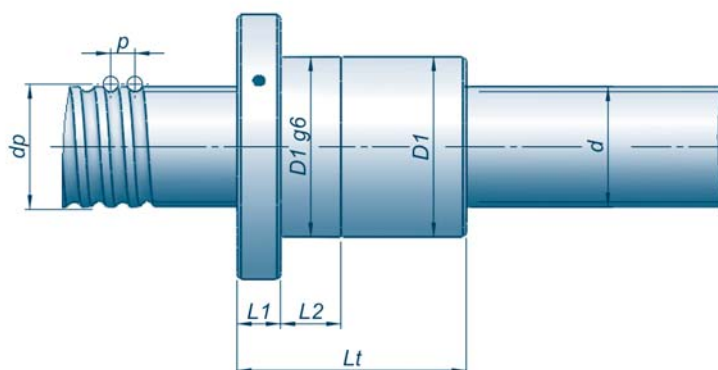
Ca: Dynamic Load Coa: Static Load Nc: Circuit numbers



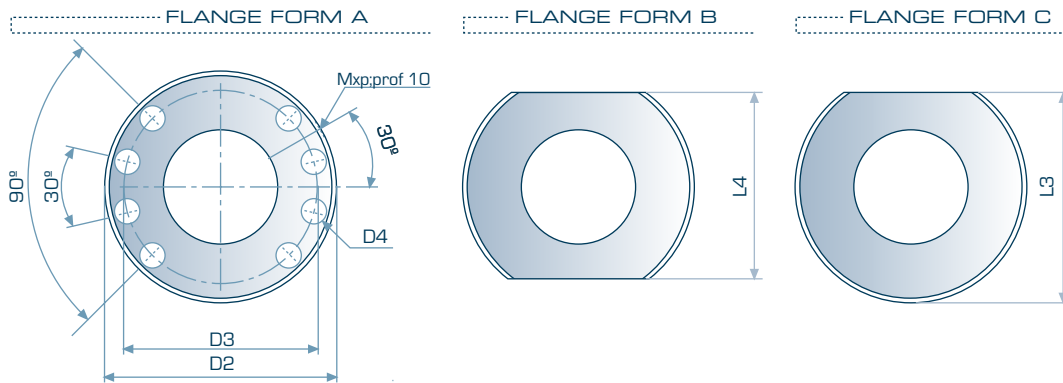
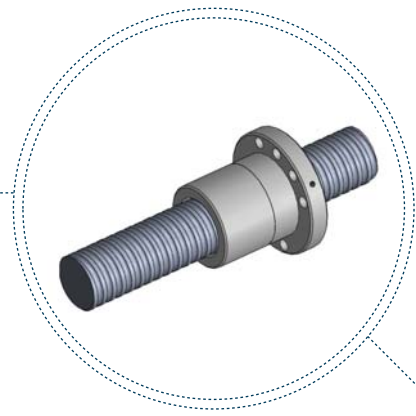
D1 $\phi 6$	D2 ($\pm 0,1$)	D3 ($\pm 0,1$)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT ($\pm 0,1$)
150	200	175	17,5	8	M8x1	25	25	177,5	155	230
150	200	175	17,5	8	M8x1	25	25	177,5	155	270
150	200	175	17,5	8	M8x1	25	25	177,5	155	310
150	200	175	17,5	8	M8x1	25	25	177,5	155	350
160	210	185	17,5	8	M8x1	25	25	187,5	165	240
160	210	185	17,5	8	M8x1	25	25	187,5	165	280
160	210	185	17,5	8	M8x1	25	25	187,5	165	320
160	210	185	17,5	8	M8x1	25	25	187,5	165	360
150	200	175	17,5	8	M8x1	30	30	177,5	155	270
150	200	175	17,5	8	M8x1	30	30	177,5	155	320
150	200	175	17,5	8	M8x1	30	30	177,5	155	370
150	200	175	17,5	8	M8x1	30	30	177,5	155	420
160	210	185	17,5	8	M8x1	30	30	187,5	165	280
160	210	185	17,5	8	M8x1	30	30	187,5	165	330
160	210	185	17,5	8	M8x1	30	30	187,5	165	380
160	210	185	17,5	8	M8x1	30	30	187,5	165	430
170	220	195	17,5	8	M8x1	30	30	197,5	175	285
170	220	195	17,5	8	M8x1	30	30	197,5	175	335
170	220	195	17,5	8	M8x1	30	30	197,5	175	385
170	220	195	17,5	8	M8x1	30	30	197,5	175	435
150	200	175	17,5	8	M8x1	35	35	177,5	155	240
150	200	175	17,5	8	M8x1	35	35	177,5	155	300
150	200	175	17,5	8	M8x1	35	35	177,5	155	420
160	210	185	17,5	8	M8x1	35	35	187,5	165	250
160	210	185	17,5	8	M8x1	35	35	187,5	165	310
160	210	185	17,5	8	M8x1	35	35	187,5	165	430
170	220	195	17,5	8	M8x1	35	35	197,5	175	255
170	220	195	17,5	8	M8x1	35	35	197,5	175	315
170	220	195	17,5	8	M8x1	35	35	197,5	175	435
150	200	175	17,5	8	M8x1	40	40	177,5	155	380
150	200	175	17,5	8	M8x1	40	40	177,5	155	460
160	210	185	17,5	8	M8x1	40	40	187,5	165	390
160	210	185	17,5	8	M8x1	40	40	187,5	165	470
170	220	195	17,5	8	M8x1	40	40	197,5	175	395
170	220	195	17,5	8	M8x1	40	40	197,5	175	475
150	200	175	17,5	8	M8x1	40	40	177,5	155	340
150	200	175	17,5	8	M8x1	40	40	177,5	155	440
160	210	185	17,5	8	M8x1	40	40	187,5	165	350
160	210	185	17,5	8	M8x1	40	40	187,5	165	450
170	220	195	17,5	8	M8x1	40	40	197,5	175	355
170	220	195	17,5	8	M8x1	40	40	197,5	175	455
150	200	175	17,5	8	M8x1	40	40	177,5	155	380
150	200	175	17,5	8	M8x1	40	40	177,5	155	500
160	210	185	17,5	8	M8x1	40	40	187,5	165	390
160	210	185	17,5	8	M8x1	40	40	187,5	165	510
170	220	195	17,5	8	M8x1	40	40	197,5	175	395
170	220	195	17,5	8	M8x1	40	40	197,5	175	515

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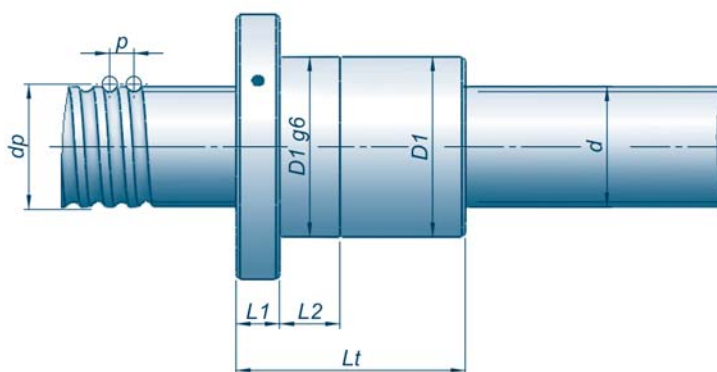
CODE	d	p	Ø ball	nc	C _{0a} (N)	C _a (N)	
SNF 120x20-13-4 -A	120	20	12,7	4	1.032.393	501.161	
SNF 120x20-13-6 -A				6	1.750.375	479.759	
SNF 120x25-13-4 -A				4	1.164.255	338.520	
SNF 120x25-13-6 -A							
SNF 120x25-16-4 -A				6	1.543.744	710.257	
SNF 120x25-16-6 -A							
SNF 120x30-13-2 -A		25	15,875	12,7	2	463.294	378.478
SNF 120x30-13-5 -A					5	1.494.133	419.200
SNF 120x30-16-2 -A					2	832.219	283.733
SNF 120x30-16-5 -A							
SNF 120x30-20-2 -A					5	1.893.707	859.797
SNF 120x30-20-5 -A							
SNF 120x40-13-3 -A		30	19,05	12,7	2	1.090.775	390.992
SNF 120x40-13-4 -A					5	3.402.378	415.132
SNF 120x40-16-3 -A					3	808.206	398.660
SNF 120x40-16-4 -A							
SNF 120x40-20-3 -A					4	1.077.608	510.564
SNF 120x40-20-4 -A							
SNF 120x50-13-2 -A		40	15,875	15,875	3	1.149.684	550.055
SNF 120x50-13-3 -A					4	1.532.912	704.455
SNF 120x50-16-2 -A					3	2.104.091	273.268
SNF 120x50-16-3 -A							
SNF 120x50-20-2 -A					4	2.805.455	349.974
SNF 120x50-20-3 -A							
SNF 120x60-13-2 -A		50	19,05	12,7	2	490.136	388.122
SNF 120x60-13-3 -A					3	735.204	550.055
SNF 120x60-16-2 -A					2	972.062	192.819
SNF 120x60-16-3 -A							
SNF 120x60-20-2 -A					3	1.458.092	273.268
SNF 120x60-20-3 -A							
SNF 120x60-20-2 -A	60	15,875	19,05	2	1.399.769	192.819	
SNF 120x60-20-3 -A				3	2.099.653	273.268	
SNF 120x60-13-2 -A				2	620.441	192.819	
SNF 120x60-13-3 -A							
SNF 120x60-16-2 -A				3	930.661	273.268	
SNF 120x60-16-3 -A							
SNF 120x60-16-2 -A	2	837.213	281.296				
SNF 120x60-16-3 -A							
SNF 120x60-20-2 -A	3	1.255.820	398.660				
SNF 120x60-20-3 -A							
SNF 120x60-20-2 -A	2	1.097.669	388.122				
SNF 120x60-20-3 -A							
SNF 120x60-20-3 -A	3	1.646.503	550.055				



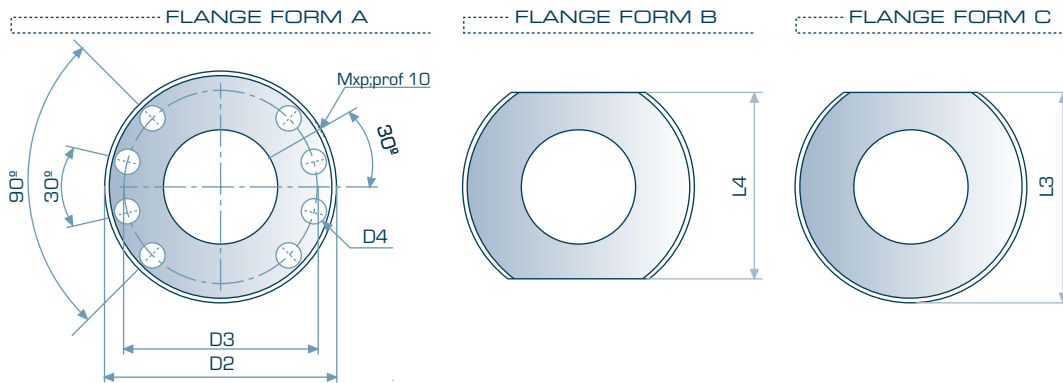
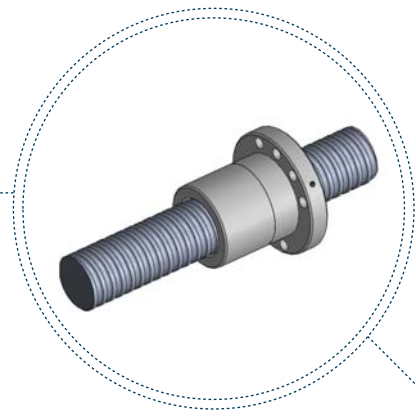
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	m xp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
180	230	205	17,5	8	M8x1	25	25	207,5	185	280
180	230	205	17,5	8	M8x1	25	25	207,5	185	360
180	230	205	17,5	8	M8x1	30	30	207,5	185	330
180	230	205	17,5	8	M8x1	30	30	207,5	185	430
190	240	215	17,5	8	M8x1	30	30	217,5	195	335
190	240	215	17,5	8	M8x1	30	30	217,5	195	435
180	230	205	17,5	8	M8x1	35	35	207,5	185	250
180	230	205	17,5	8	M8x1	35	35	207,5	185	430
190	240	215	17,5	8	M8x1	35	35	217,5	195	255
190	240	215	17,5	8	M8x1	35	35	217,5	195	435
200	250	225	17,5	8	M8x1	35	35	227,5	205	260
200	250	225	17,5	8	M8x1	35	35	227,5	205	440
180	230	205	17,5	8	M8x1	40	40	207,5	185	390
180	230	205	17,5	8	M8x1	40	40	207,5	185	470
190	240	215	17,5	8	M8x1	40	40	217,5	195	395
190	240	215	17,5	8	M8x1	40	40	217,5	195	475
200	250	225	17,5	8	M8x1	40	40	227,5	205	400
200	250	225	17,5	8	M8x1	40	40	227,5	205	480
180	230	205	17,5	8	M8x1	40	40	207,5	185	350
180	230	205	17,5	8	M8x1	40	40	207,5	185	450
190	240	215	17,5	8	M8x1	40	40	217,5	195	355
190	240	215	17,5	8	M8x1	40	40	217,5	195	455
200	250	225	17,5	8	M8x1	40	40	227,5	205	360
200	250	225	17,5	8	M8x1	40	40	227,5	205	460
180	230	205	17,5	8	M8x1	40	40	207,5	185	390
180	230	205	17,5	8	M8x1	40	40	207,5	185	510
190	240	215	17,5	8	M8x1	40	40	217,5	195	395
190	240	215	17,5	8	M8x1	40	40	217,5	195	515
200	250	225	17,5	8	M8x1	40	40	227,5	205	400
200	250	225	17,5	8	M8x1	40	40	227,5	205	520

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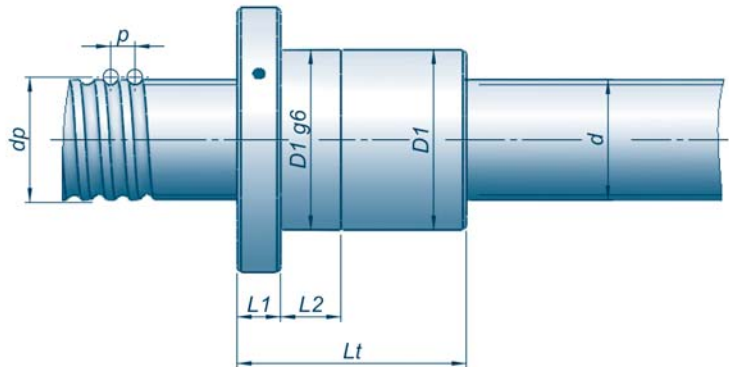
CODE	S	ρ	\emptyset ball	n_c	C_{0a} (N)	C_a (N)	
SNF 125x20-13-4 -A	125	20	12,7	4	972.603	704.455	
SNF 125x20-13-6 -A				6	2.057.192	512.032	
SNF 125x25-13-4 -A				4	1.128.191	753.259	
SNF 125x25-13-6 -A				6	2.054.692	512.032	
SNF 125x25-16-4 -A		25		15,875	4	1.894.439	536.959
SNF 125x25-16-6 -A					6	2.642.478	1.067.537
SNF 125x25-20-4 -A				19,05	4	3.076.811	361.292
SNF 125x25-20-6 -A					6	4.085.144	760.992
SNF 125x30-13-2 -A		30	12,7	2	682.251	199.055	
SNF 125x30-13-5 -A				5	1.509.775	650.555	
SNF 125x30-16-2 -A			15,875	2	877.514	415.010	
SNF 125x30-16-5 -A				5	2.658.005	437.725	
SNF 125x30-20-2 -A			19,05	2	1.531.011	199.055	
SNF 125x30-20-5 -A				5	3.388.144	650.555	
SNF 125x40-13-3 -A		40	12,7	3	1.177.901	297.990	
SNF 125x40-13-4 -A				4	1.570.535	381.636	
SNF 125x40-16-3 -A			15,875	3	1.043.661	444.060	
SNF 125x40-16-4 -A				4	1.391.547	568.707	
SNF 125x40-20-3 -A			19,05	3	2.151.738	618.297	
SNF 125x40-20-4 -A				4	2.868.984	791.852	
SNF 125x50-13-2 -A		50	12,7	2	693.217	313.331	
SNF 125x50-13-3 -A				3	1.039.825	444.060	
SNF 125x50-16-2 -A			15,875	2	992.558	436.273	
SNF 125x50-16-3 -A				3	1.488.837	618.297	
SNF 125x50-20-2 -A			19,05	2	1.995.176	220.454	
SNF 125x50-20-3 -A				3	2.992.763	312.433	
SNF 125x60-13-2 -A		60	12,7	2	712.166	455.499	
SNF 125x60-13-3 -A				3	1.068.249	645.545	
SNF 125x60-16-2 -A			15,875	2	1.033.958	602.388	
SNF 125x60-16-3 -A				3	1.550.937	853.718	
SNF 125x60-20-2 -A			19,05	2	1.989.266	220.454	
SNF 125x60-20-3 -A				3	2.983.899	312.433	



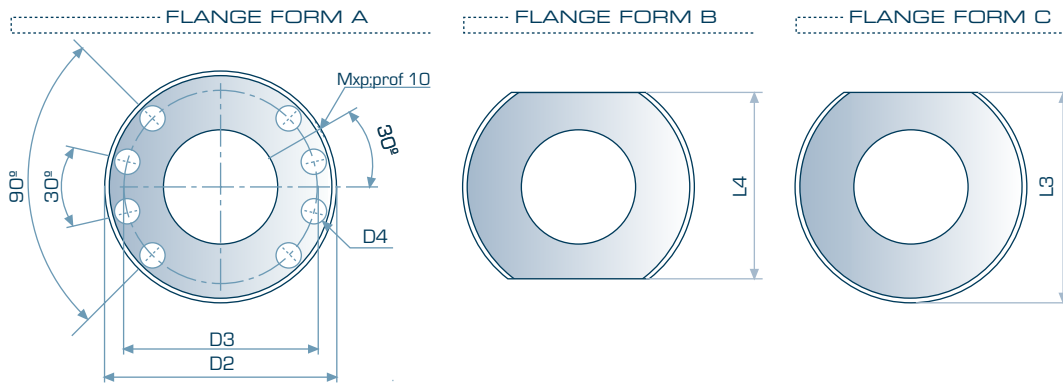
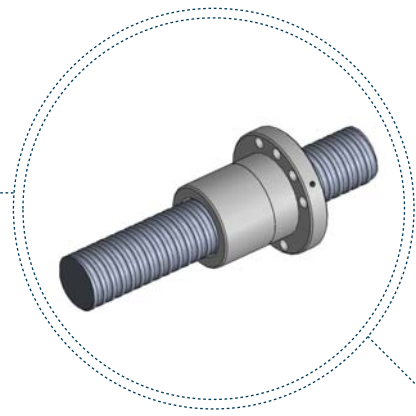
D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
185	235	210	17,5	8	M8x1	25	25	212,5	190	280
185	235	210	17,5	8	M8x1	25	25	212,5	190	360
185	235	210	17,5	8	M8x1	30	30	212,5	190	330
185	235	210	17,5	8	M8x1	30	30	212,5	190	430
195	245	220	17,5	8	M8x1	30	30	222,5	200	335
195	245	220	17,5	8	M8x1	30	30	222,5	200	435
205	255	230	17,5	8	M8x1	30	30	232,5	210	340
205	255	230	17,5	8	M8x1	30	30	232,5	210	440
185	235	210	17,5	8	M8x1	35	35	212,5	190	250
185	235	210	17,5	8	M8x1	35	35	212,5	190	430
195	245	220	17,5	8	M8x1	35	35	222,5	200	255
195	245	220	17,5	8	M8x1	35	35	222,5	200	435
205	255	230	17,5	8	M8x1	35	35	232,5	210	260
205	255	230	17,5	8	M8x1	35	35	232,5	210	440
185	235	210	17,5	8	M8x1	40	40	212,5	190	390
185	235	210	17,5	8	M8x1	40	40	212,5	190	470
185	235	210	17,5	8	M8x1	40	40	212,5	190	390
185	235	210	17,5	8	M8x1	40	40	212,5	190	470
205	255	230	17,5	8	M8x1	40	40	232,5	210	400
205	255	230	17,5	8	M8x1	40	40	232,5	210	480
185	235	210	17,5	8	M8x1	40	40	212,5	190	350
185	235	210	17,5	8	M8x1	40	40	212,5	190	450
195	245	220	17,5	8	M8x1	40	40	222,5	200	355
195	245	220	17,5	8	M8x1	40	40	222,5	200	455
205	255	230	17,5	8	M8x1	40	40	232,5	210	360
205	255	230	17,5	8	M8x1	40	40	232,5	210	460
185	235	210	17,5	8	M8x1	40	40	212,5	190	350
185	235	210	17,5	8	M8x1	40	40	212,5	190	450
195	245	220	17,5	8	M8x1	40	40	222,5	200	355
195	245	220	17,5	8	M8x1	40	40	222,5	200	455
205	255	230	17,5	8	M8x1	40	40	232,5	210	400
205	255	230	17,5	8	M8x1	40	40	232,5	210	520
200	250	225	17,5	8	M8x1	25	25	227,5	205	280

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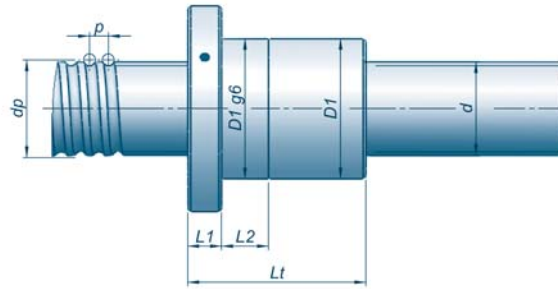
CODE	S	p	Ø ball	nc	C _{0a} (N)	C _a (N)
SNF 140x20-13-4 -A	140	20	12,7	4	1.319.669	1.093.357
SNF 140x20-13-6 -A				6	2.964.548	591.222
SNF 140x25-13-4 -A				4	1.483.324	1.148.361
SNF 140x25-13-6 -A				6	2.957.392	591.222
SNF 140x25-16-4 -A				4	2.733.434	623.720
SNF 140x25-16-6 -A				6	3.790.317	1.241.560
SNF 140x25-20-4 -A		4	3.329.652	1.148.361		
SNF 140x25-20-6 -A		6	7.354.742	613.681		
SNF 140x30-13-2 -A		30	12,7	2	885.045	498.569
SNF 140x30-13-5 -A				5	2.053.999	1.452.522
SNF 140x30-16-2 -A				2	1.699.073	238.572
SNF 140x30-16-5 -A				5	3.770.880	785.217
SNF 140x30-20-2 -A				2	2.172.027	357.077
SNF 140x30-20-5 -A				5	4.968.570	1.096.360
SNF 140x40-13-3 -A		40	12,7	3	1.786.466	349.709
SNF 140x40-13-4 -A				4	2.381.955	447.872
SNF 140x40-16-3 -A				3	2.479.036	523.857
SNF 140x40-16-4 -A				4	3.305.382	670.903
SNF 140x40-20-3 -A				3	3.238.318	727.739
SNF 140x40-20-4 -A				4	4.317.757	932.015
SNF 140x50-13-2 -A		50	12,7	2	1.188.963	246.756
SNF 140x50-13-3 -A				3	1.783.444	349.709
SNF 140x50-16-2 -A				2	1.649.918	369.636
SNF 140x50-16-3 -A				3	2.474.877	523.857
SNF 140x50-20-2 -A				2	2.155.285	513.496
SNF 140x50-20-3 -A				3	3.232.928	727.739
SNF 140x60-13-2 -A		60	12,7	2	1.292.346	254.477
SNF 140x60-13-3 -A				3	1.938.518	360.651
SNF 140x60-16-2 -A				2	1.794.004	381.455
SNF 140x60-16-3 -A				3	2.691.006	540.607
SNF 140x60-20-2 -A	2			2.326.288	527.601	
SNF 140x60-20-3 -A	3			3.489.433	747.728	



D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
200	250	225	17,5	8	M8x1	25	25	227,5	205	280
200	250	225	17,5	8	M8x1	25	25	227,5	205	360
200	250	225	17,5	8	M8x1	30	30	227,5	205	330
200	250	225	17,5	8	M8x1	30	30	227,5	205	430
210	275	242	22	8	M8x1	30	30	245	215	335
210	275	242	22	8	M8x1	30	30	245	215	435
220	285	252	22	8	M8x1	30	30	255	225	340
220	285	252	22	8	M8x1	30	30	255	225	440
200	250	225	17,5	8	M8x1	35	35	227,5	205	250
200	250	225	17,5	8	M8x1	35	35	227,5	205	430
210	275	242	22	8	M8x1	35	35	245	215	255
210	275	242	22	8	M8x1	35	35	245	215	435
220	285	252	22	8	M8x1	35	35	255	225	260
220	285	252	22	8	M8x1	35	35	255	225	440
200	250	225	17,5	8	M8x1	40	40	227,5	205	390
200	250	225	17,5	8	M8x1	40	40	227,5	205	470
210	275	242	22	8	M8x1	40	40	245	215	395
210	275	242	22	8	M8x1	40	40	245	215	475
220	285	252	22	8	M8x1	40	40	255	225	400
220	285	252	22	8	M8x1	40	40	255	225	480
200	250	225	17,5	8	M8x1	40	40	227,5	205	350
200	250	225	17,5	8	M8x1	40	40	227,5	205	450
210	275	242	22	8	M8x1	40	40	245	215	355
210	275	242	22	8	M8x1	40	40	245	215	455
220	285	252	22	8	M8x1	40	40	255	225	360
220	285	252	22	8	M8x1	40	40	255	225	460
200	250	225	17,5	8	M8x1	40	40	227,5	205	390
200	250	225	17,5	8	M8x1	40	40	227,5	205	510
210	275	242	22	8	M8x1	40	40	245	215	395
210	275	242	22	8	M8x1	40	40	245	215	515
220	285	252	22	8	M8x1	40	40	255	225	400
220	285	252	22	8	M8x1	40	40	255	225	520

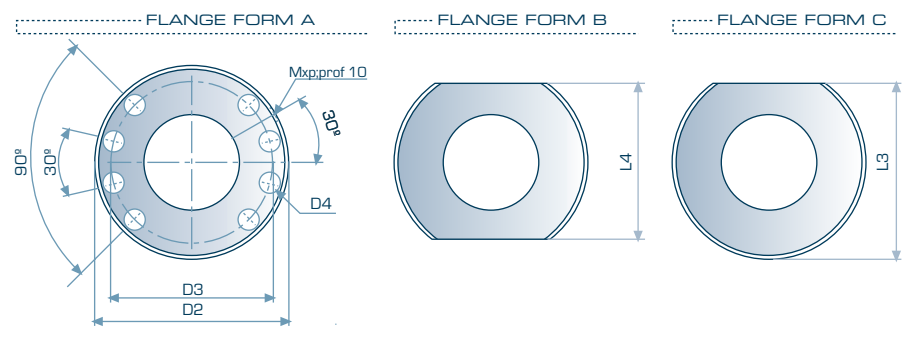
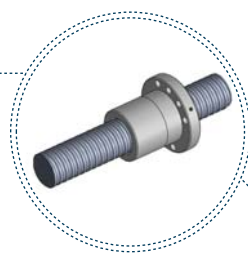
SINGLE NUT FLANGED

AXIAL DEFLECTORS



CODE	S	ρ	\emptyset ball	n_c	C_{oa} (N)	C_a (N)	
SNF 160x40-13-3 -A	160	40	12,7	3	1.808.150	795.481	
SNF 160x40-13-4 -A				4	2.410.867	1.018.772	
SNF 160x40-16-3 -A			15,875	3	2.611.552	1.053.348	
SNF 160x40-16-4 -A				4	3.482.069	1.349.022	
SNF 160x40-20-3 -A			19,05	3	2.151.738	618.297	
SNF 160x40-20-4 -A				4	2.868.984	791.852	
SNF 160x60-13-2 -A		60	12,7	2	782.347	210.263	
SNF 160x60-13-3 -A				3	1.173.520	297.990	
SNF 160x60-16-2 -A				2	1.083.151	313.331	
SNF 160x60-16-3 -A			15,875	3	1.624.727	444.060	
SNF 160x60-20-2 -A				2	1.429.283	436.273	
SNF 160x60-20-3 -A				3	2.143.925	618.297	
SNF 180x40-13-3 -A	180	40	12,7	3	1.330.117	312.433	
SNF 180x40-13-4 -A				4	1.773.489	400.133	
SNF 180x40-16-3 -A			15,875	3	1.842.186	466.469	
SNF 180x40-16-4 -A				4	2.457.186	597.407	
SNF 180x40-20-3 -A			19,05	3	2.403.560	645.545	
SNF 180x40-20-4 -A				4	3.204.746	826.749	
SNF 180x40-22-3 -A		22,225	22,225	3	3.039.836	853.718	
SNF 180x40-22-4 -A				4	4.053.115	1.093.357	
SNF 180x60-13-2 -A				12,7	2	884.118	220.454
SNF 180x60-13-3 -A			3		1.326.177	312.433	
SNF 180x60-16-2 -A			2		1.224.993	329.143	
SNF 180x60-16-3 -A			15,875	3	1.837.489	466.469	
SNF 180x60-20-2 -A	2	1.597.727		455.499			
SNF 180x60-20-3 -A	3	2.396.591		645.545			
SNF 180x60-22-2 -A	22,225	22,225	2	2.020.744	602.388		
SNF 180x60-22-3 -A			3	3.031.116	853.718		
SNF 200x40-13-3 -A			200	40	12,7	3	1.482.274
SNF 200x40-13-4 -A		4				1.976.366	417.169
SNF 200x40-16-3 -A		15,875			3	2.054.988	487.015
SNF 200x40-16-4 -A					4	2.739.985	623.720
SNF 200x40-20-3 -A	19,05	3			2.735.505	684.041	
SNF 200x40-20-4 -A		4			3.647.340	876.051	
SNF 200x40-22-3 -A	22,225	22,225		3	3.407.009	896.667	
SNF 200x40-22-4 -A				4	4.542.679	1.148.361	
SNF 200x60-13-2 -A				12,7	2	985.797	229.841
SNF 200x60-13-3 -A		3			1.478.696	325.735	
SNF 200x60-16-2 -A		2			1.366.717	343.640	
SNF 200x60-16-3 -A		15,875		3	2.050.075	487.015	
SNF 200x60-20-2 -A	2		1.819.352	482.662			
SNF 200x60-20-3 -A	3		2.729.028	684.041			
SNF 200x60-22-2 -A	22,225	22,225	2	2.266.013	632.692		
SNF 200x60-22-3 -A			3	3.399.019	896.667		

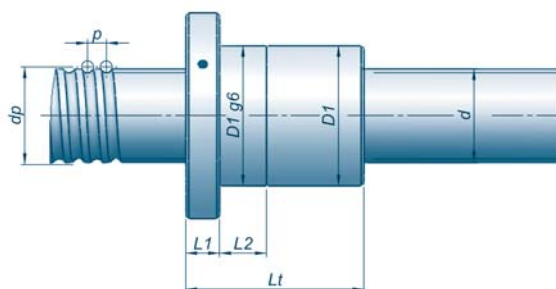
Ca: Dynamic Load **Coa:** Static Load **nc:** Circuit numbers



D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	MxP	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
220	285	252	22	8	M10x1	40	40	255	225	390
220	285	252	22	8	M10x1	40	40	255	225	470
230	295	262	22	8	M10x1	40	40	265	235	395
230	295	262	22	8	M10x1	40	40	265	235	475
240	305	272	22	8	M10x1	40	40	275	245	400
240	305	272	22	8	M10x1	40	40	275	245	480
220	285	252	22	8	M10x1	40	40	255	225	390
220	285	252	22	8	M10x1	40	40	255	225	510
230	295	262	22	8	M10x1	40	40	265	235	395
230	295	262	22	8	M10x1	40	40	265	235	515
240	305	272	22	8	M10x1	40	40	275	245	400
240	305	272	22	8	M10x1	40	40	275	245	520
240	305	272	22	8	M10x1	40	40	275	245	390
240	305	272	22	8	M10x1	40	40	275	245	470
250	315	282	22	8	M10x1	40	40	285	255	395
250	315	282	22	8	M10x1	40	40	285	255	475
260	325	292	22	8	M10x1	40	40	295	265	400
260	325	292	22	8	M10x1	40	40	295	265	480
270	335	302	22	8	M10x1	40	40	305	275	410
270	335	302	22	8	M10x1	40	40	305	275	490
240	305	272	22	8	M10x1	40	40	275	245	390
240	305	272	22	8	M10x1	40	40	275	245	510
250	315	282	22	8	M10x1	40	40	285	255	395
250	315	282	22	8	M10x1	40	40	285	255	515
260	325	292	22	8	M10x1	40	40	295	265	400
260	325	292	22	8	M10x1	40	40	295	265	520
270	335	302	22	8	M10x1	40	40	305	275	410
270	335	302	22	8	M10x1	40	40	305	275	530
260	325	292	22	8	M10x1	40	40	295	265	390
260	325	292	22	8	M10x1	40	40	295	265	470
270	335	302	22	8	M10x1	40	40	305	275	395
270	335	302	22	8	M10x1	40	40	305	275	475
280	345	312	22	8	M10x1	40	40	315	285	400
280	345	312	22	8	M10x1	40	40	315	285	480
290	355	322	22	8	M10x1	40	40	325	295	410
290	355	322	22	8	M10x1	40	40	325	295	490
260	325	292	22	8	M10x1	40	40	295	265	390
260	325	292	22	8	M10x1	40	40	295	265	510
270	335	302	22	8	M10x1	40	40	305	275	395
270	335	302	22	8	M10x1	40	40	305	275	515
280	345	312	22	8	M10x1	40	40	315	285	400
280	345	312	22	8	M10x1	40	40	315	285	520
290	355	322	22	8	M10x1	40	40	325	295	410
290	355	322	22	8	M10x1	40	40	325	295	530

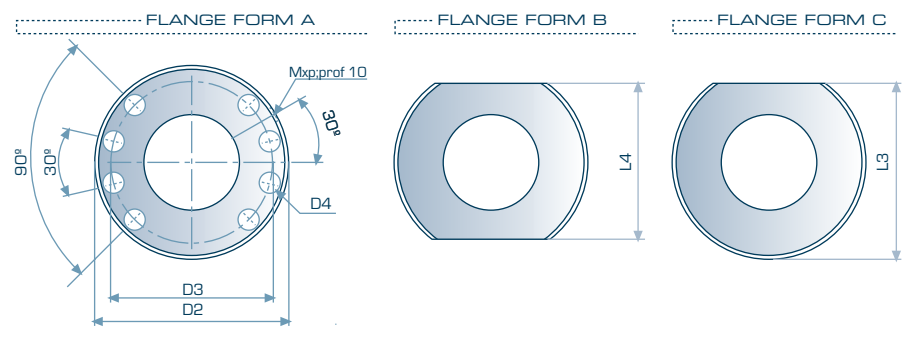
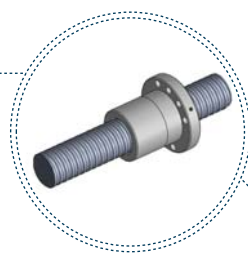
SINGLE NUT FLANGED

AXIAL
DEFLECTORS



CODE	S	p	Ø ball	Nc	Coa (N)	Ca (N)	
SNF 220x40-13-3 -A	220	40	12,7	3	1.634.387	338.109	
SNF 220x40-13-4 -A				4	2.179.183	433.016	
SNF 220x40-16-3 -A			15,875	3	2.267.033	506.058	
SNF 220x40-16-4 -A				4	3.022.711	648.108	
SNF 220x40-20-3 -A			19,05	3	2.987.026	706.583	
SNF 220x40-20-4 -A				4	3.982.702	904.921	
SNF 220x40-22-3 -A		22,225	3	3.774.224	936.123		
SNF 220x40-22-4 -A			4	5.032.299	1.198.982		
SNF 220x60-13-2 -A		60	60	12,7	2	1.087.407	238.572
SNF 220x60-13-3 -A					3	1.631.110	338.109
SNF 220x60-16-2 -A				15,875	2	1.508.352	357.077
SNF 220x60-16-3 -A					3	2.262.528	506.058
SNF 220x60-20-2 -A	19,05			2	1.987.428	498.569	
SNF 220x60-20-3 -A				3	2.981.142	706.583	
SNF 220x60-22-2 -A	22,225		2	2.511.236	660.533		
SNF 220x60-22-3 -A			3	3.766.854	936.123		
SNF 240x40-13-3 -A	240		40	12,7	3	1.786.466	349.709
SNF 240x40-13-4 -A					4	2.381.955	447.872
SNF 240x40-16-3 -A				15,875	3	2.479.036	523.857
SNF 240x40-16-4 -A					4	3.305.382	670.903
SNF 240x40-20-3 -A		19,05		3	3.238.318	727.739	
SNF 240x40-20-4 -A				4	4.317.757	932.015	
SNF 240x40-22-3 -A		22,225	3	4.023.139	954.106		
SNF 240x40-22-4 -A			4	5.364.186	1.221.924		
SNF 240x60-13-2 -A		60	60	12,7	2	1.188.963	246.756
SNF 240x60-13-3 -A					3	1.783.444	349.709
SNF 240x60-16-2 -A				15,875	2	1.649.918	369.636
SNF 240x60-16-3 -A					3	2.474.877	523.857
SNF 240x60-20-2 -A	19,05			2	2.155.285	513.496	
SNF 240x60-20-3 -A				3	3.232.928	727.739	
SNF 240x60-22-2 -A	22,225		2	2.756.420	686.359		
SNF 240x60-22-3 -A			3	4.134.630	972.724		
SNF 260x40-13-3 -A	260		40	12,7	3	1.938.518	360.651
SNF 260x40-13-4 -A					4	2.584.691	461.886
SNF 260x40-16-3 -A				15,875	3	2.691.006	540.607
SNF 260x40-16-4 -A					4	3.588.009	692.356
SNF 260x40-20-3 -A		19,05		3	3.489.433	747.728	
SNF 260x40-20-4 -A				4	4.652.577	957.615	
SNF 260x40-22-3 -A		22,225	3	4.390.079	989.201		
SNF 260x40-22-4 -A			4	5.853.439	1.266.869		
SNF 260x60-13-2 -A		60	60	12,7	2	1.290.477	254.477
SNF 260x60-13-3 -A					3	1.935.715	360.651
SNF 260x60-16-2 -A				15,875	2	1.791.429	381.455
SNF 260x60-16-3 -A					3	2.687.144	540.607
SNF 260x60-20-2 -A	19,05			2	2.322.974	527.601	
SNF 260x60-20-3 -A				3	3.484.462	747.728	
SNF 260x60-22-2 -A	22,225		2	2.922.581	697.985		
SNF 260x60-22-3 -A			3	4.383.872	989.201		

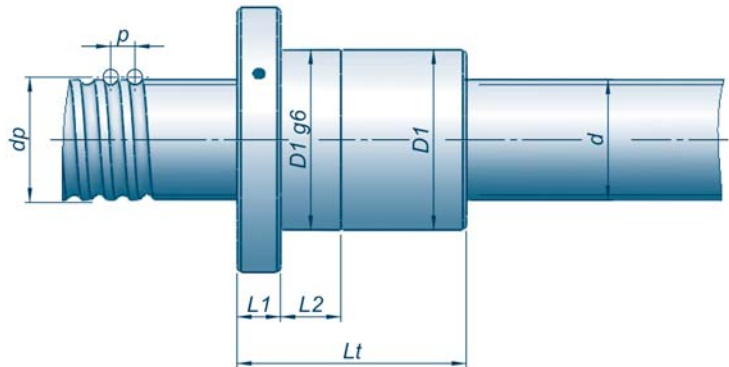
Ca: Dynamic Load Coa: Static Load Nc: Circuit numbers



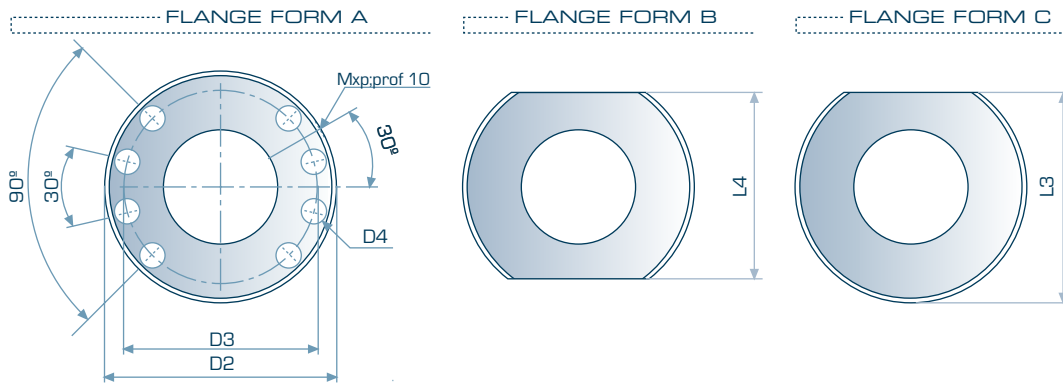
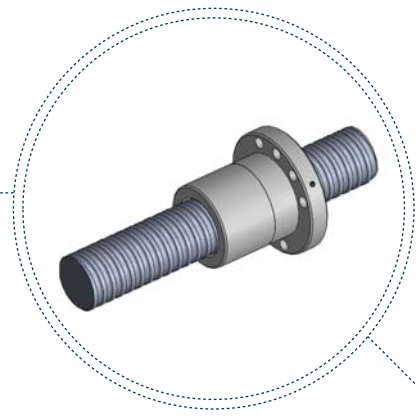
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
280	345	312	22	8	M10x1	40	40	315	285	390
280	345	312	22	8	M10x1	40	40	315	285	470
290	355	322	22	8	M10x1	40	40	325	295	395
290	355	322	22	8	M10x1	40	40	325	295	475
300	365	332	22	8	M10x1	40	40	335	305	400
300	365	332	22	8	M10x1	40	40	335	305	480
310	375	342	22	8	M10x1	40	40	345	315	410
310	375	342	22	8	M10x1	40	40	345	315	490
280	345	312	22	8	M10x1	40	40	315	285	390
280	345	312	22	8	M10x1	40	40	315	285	510
290	355	322	22	8	M10x1	40	40	325	295	395
290	355	322	22	8	M10x1	40	40	325	295	515
300	365	332	22	8	M10x1	40	40	335	305	400
300	365	332	22	8	M10x1	40	40	335	305	520
310	375	342	22	8	M10x1	40	40	345	315	410
310	375	342	22	8	M10x1	40	40	345	315	530
300	365	332	22	8	M10x1	40	40	335	305	390
300	365	332	22	8	M10x1	40	40	335	305	470
310	375	342	22	8	M10x1	40	40	345	315	395
310	375	342	22	8	M10x1	40	40	345	315	475
320	385	352	22	8	M10x1	40	40	355	325	400
320	385	352	22	8	M10x1	40	40	355	325	480
330	395	362	22	8	M10x1	40	40	365	335	410
330	395	362	22	8	M10x1	40	40	365	335	490
300	365	332	22	8	M10x1	40	40	335	305	390
300	365	332	22	8	M10x1	40	40	335	305	510
310	375	342	22	8	M10x1	40	40	345	315	395
310	375	342	22	8	M10x1	40	40	345	315	515
320	385	352	22	8	M10x1	40	40	355	325	400
320	385	352	22	8	M10x1	40	40	355	325	520
330	395	362	22	8	M10x1	40	40	365	335	410
330	395	362	22	8	M10x1	40	40	365	335	530
320	385	352	22	8	M10x1	40	40	355	325	390
320	385	352	22	8	M10x1	40	40	355	325	470
330	395	362	22	8	M10x1	40	40	365	335	395
330	395	362	22	8	M10x1	40	40	365	335	475
340	405	372	22	8	M10x1	40	40	375	345	400
340	405	372	22	8	M10x1	40	40	375	345	480
350	415	382	22	8	M10x1	40	40	385	355	410
350	415	382	22	8	M10x1	40	40	385	355	490
320	385	352	22	8	M10x1	40	40	355	325	390
320	385	352	22	8	M10x1	40	40	355	325	510
330	395	362	22	8	M10x1	40	40	365	335	395
330	395	362	22	8	M10x1	40	40	365	335	515
340	405	372	22	8	M10x1	40	40	375	345	400
340	405	372	22	8	M10x1	40	40	375	345	520
350	415	382	22	8	M10x1	40	40	385	355	410
350	415	382	22	8	M10x1	40	40	385	355	530

SINGLE NUT FLANGED

AXIAL DEFLECTORS

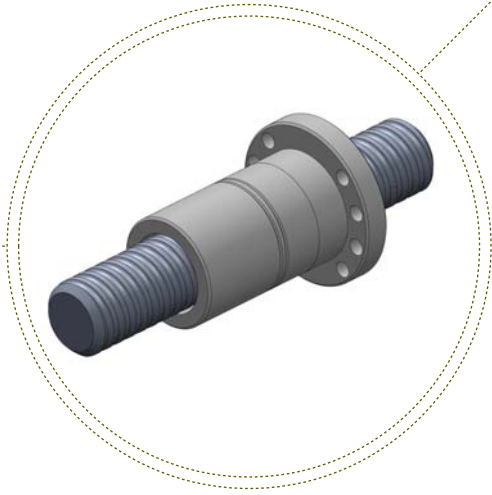
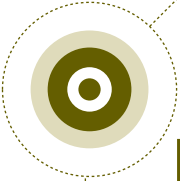


CODE	S	p	Ø ball	nc	Coa (N)	Ca (N)	
SNF 280x40-13-3 -A	280	40	12,7	3	2.090.549	371.026	
SNF 280x40-13-4 -A				4	2.787.399	475.173	
SNF 280x40-16-3 -A			15,875	3	2.902.950	556.459	
SNF 280x40-16-4 -A				4	3.870.600	712.657	
SNF 280x40-20-3 -A			19,05	3	3.821.721	777.790	
SNF 280x40-20-4 -A				4	5.095.629	996.116	
SNF 280x40-22-3 -A		22,225	3	4.757.080	1.022.182		
SNF 280x40-22-4 -A			4	6.342.773	1.309.108		
SNF 280x60-13-2 -A		60	60	12,7	2	1.391.957	261.798
SNF 280x60-13-3 -A					3	2.087.935	371.026
SNF 280x60-16-2 -A				15,875	2	1.932.897	392.640
SNF 280x60-16-3 -A					3	2.899.346	556.459
SNF 280x60-20-2 -A	19,05			2	2.544.673	548.812	
SNF 280x60-20-3 -A				3	3.817.009	777.790	
SNF 280x60-22-2 -A	22,225		2	3.167.503	721.257		
SNF 280x60-22-3 -A			3	4.751.254	1.022.182		
SNF 300x40-13-3 -A	300		40	12,7	3	2.242.563	380.906
SNF 300x40-13-4 -A					4	2.990.084	487.826
SNF 300x40-16-3 -A				15,875	3	3.114.873	571.529
SNF 300x40-16-4 -A					4	4.153.163	731.957
SNF 300x40-20-3 -A		19,05		3	4.072.727	795.481	
SNF 300x40-20-4 -A				4	5.430.303	1.018.772	
SNF 300x40-22-3 -A		22,225	3	5.124.128	1.053.348		
SNF 300x40-22-4 -A			4	6.832.171	1.349.022		
SNF 300x60-13-2 -A		60	60	12,7	2	1.493.410	268.769
SNF 300x60-13-3 -A					3	2.240.115	380.906
SNF 300x60-16-2 -A				15,875	2	2.074.329	403.274
SNF 300x60-16-3 -A					3	3.111.494	571.529
SNF 300x60-20-2 -A	19,05			2	2.712.225	561.295	
SNF 300x60-20-3 -A				3	4.068.338	795.481	
SNF 300x60-22-2 -A	22,225		2	3.412.428	743.247		
SNF 300x60-22-3 -A			3	5.118.642	1.053.348		



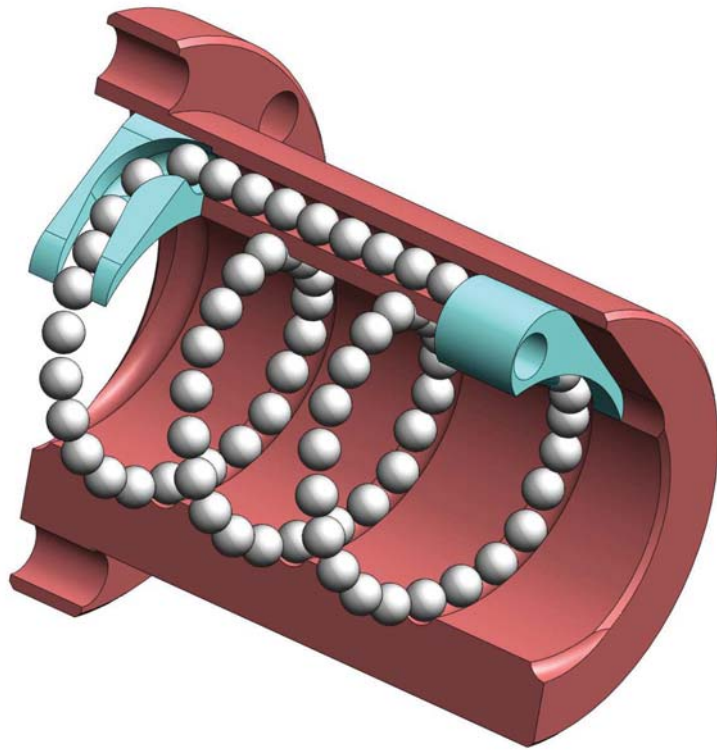
D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
340	405	372	22	8	M10x1	40	40	375	345	390
340	405	372	22	8	M10x1	40	40	375	345	470
350	415	382	22	8	M10x1	40	40	385	355	395
350	415	382	22	8	M10x1	40	40	385	355	475
360	425	392	22	8	M10x1	40	40	395	365	400
360	425	392	22	8	M10x1	40	40	395	365	480
370	435	402	22	8	M10x1	40	40	405	375	410
370	435	402	22	8	M10x1	40	40	405	375	490
340	405	372	22	8	M10x1	40	40	375	345	390
340	405	372	22	8	M10x1	40	40	375	345	510
350	415	382	22	8	M10x1	40	40	385	355	395
350	415	382	22	8	M10x1	40	40	385	355	515
360	425	392	22	8	M10x1	40	40	395	365	400
360	425	392	22	8	M10x1	40	40	395	365	520
370	435	402	22	8	M10x1	40	40	405	375	410
370	435	402	22	8	M10x1	40	40	405	375	530
360	425	392	22	8	M10x1	40	40	395	365	390
360	425	392	22	8	M10x1	40	40	395	365	470
370	435	402	22	8	M10x1	40	40	405	375	395
370	435	402	22	8	M10x1	40	40	405	375	475
380	445	412	22	8	M10x1	40	40	415	385	400
380	445	412	22	8	M10x1	40	40	415	385	480
390	455	422	22	8	M10x1	40	40	425	395	410
390	455	422	22	8	M10x1	40	40	425	395	490
360	425	392	22	8	M10x1	40	40	395	365	390
360	425	392	22	8	M10x1	40	40	395	365	510
370	435	402	22	8	M10x1	40	40	405	375	395
370	435	402	22	8	M10x1	40	40	405	375	515
380	445	412	22	8	M10x1	40	40	415	385	400
380	445	412	22	8	M10x1	40	40	415	385	520
390	455	422	22	8	M10x1	40	40	425	395	410
390	455	422	22	8	M10x1	40	40	425	395	530

BSG-ZUAZO



FLANGED DOUBLE NUT PRELOADED

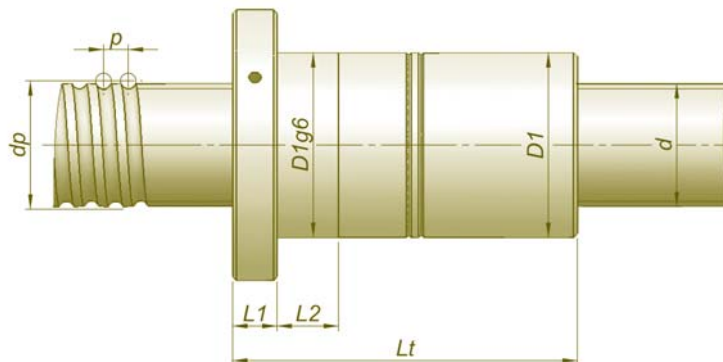
A X I A L D E F L E C T O R S



DNF axial

DOUBLE NUT FLANGED

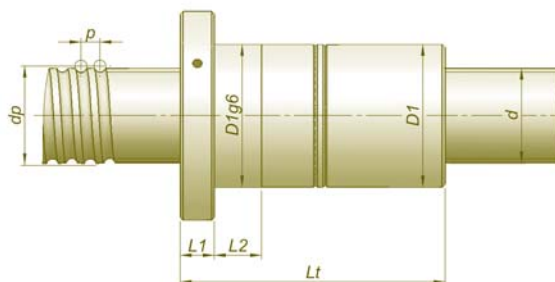
AXIAL DEFLECTORS



CODE	d	p	Ø ball	nc	C _{0a} (N)	C _a (N)	
DNF 050x20-08-3 -A	50	20	7,938	3	177.338	78.152	
DNF 050x20-08-4 -A				4	236.451	100.089	
DNF 050x20-08-5 -A				5	295.564	121.263	
DNF 050x20-08-6 -A				6	354.676	141.848	
DNF 063x20-10-3 -A	63	20	9,525	3	293.568	119.438	
DNF 063x20-10-4 -A				4	391.424	152.965	
DNF 063x20-10-5 -A				5	489.280	185.325	
DNF 063x20-10-6 -A			6	587.136	216.785		
DNF 063x20-13-3 -A			12,7	3	449.222	196.136	
DNF 063x20-13-4 -A				4	598.962	251.191	
DNF 063x20-13-5 -A		5		748.703	304.332		
DNF 063x20-13-6 -A			6	898.443	355.995		
DNF 063x30-10-2 -A		63	30	9,525	2	204.390	86.931
DNF 063x30-10-3 -A					3	306.585	123.201
DNF 063x30-10-5 -A				5	510.975	191.162	
DNF 063x30-13-2 -A				2	298.571	138.395	
DNF 063x30-13-3 -A	12,7		3	447.857	196.136		
DNF 063x30-13-5 -A			5	746.428	304.332		
DNF 063x40-10-3 -A	63		40	9,525	3	304.176	123.201
DNF 063x40-10-4 -A				4	405.568	157.783	
DNF 063x40-13-3 -A		12,7	3	444.439	196.136		
DNF 063x40-13-4 -A			4	592.586	251.191		

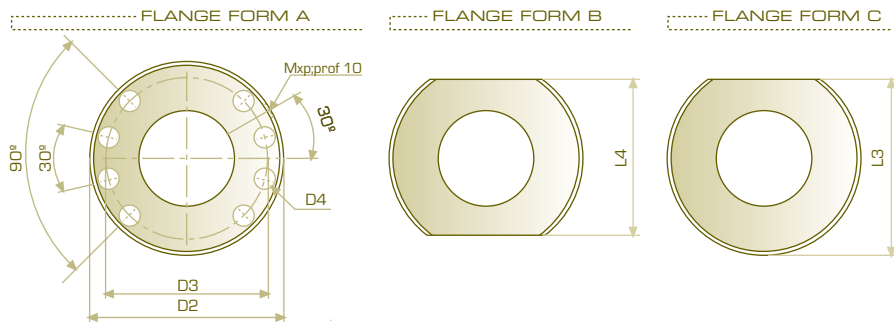
DOUBLE NUT FLANGED

AXIAL
DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)
DNF 080x20-10-3 -A	80	20	9,525	3	383.433	134.470
DNF 080x20-10-4 -A				4	511.244	172.216
DNF 080x20-10-5 -A				5	639.055	208.649
DNF 080x20-10-6 -A			6	766.865	244.069	
DNF 080x20-13-3 -A			12,7	3	572.587	219.612
DNF 080x20-13-4 -A				4	763.449	281.257
DNF 080x20-13-5 -A		5		954.311	340.757	
DNF 080x20-13-6 -A		6	1.145.173	398.604		
DNF 080x25-10-3 -A		25	9,525	3	382.805	134.470
DNF 080x25-10-4 -A				4	510.407	172.216
DNF 080x25-10-5 -A				5	638.008	208.649
DNF 080x25-10-6 -A			6	765.610	244.069	
DNF 080x25-13-3 -A			12,7	3	571.671	219.612
DNF 080x25-13-4 -A				4	762.228	281.257
DNF 080x25-13-5 -A				5	952.785	340.757
DNF 080x25-13-6 -A			6	1.143.342	398.604	
DNF 080x25-16-3 -A			15,875	3	785.813	319.976
DNF 080x25-16-4 -A				4	1.047.751	409.793
DNF 080x25-16-5 -A				5	1.309.689	496.486
DNF 080x25-16-6 -A			6	1.571.627	580.768	
DNF 080x30-10-3 -A		30	9,525	3	382.042	134.470
DNF 080x30-10-4 -A				4	509.389	172.216
DNF 080x30-10-5 -A				5	636.737	208.649
DNF 080x30-10-6 -A			6	764.084	244.069	
DNF 080x30-13-3 -A	12,7		3	570.558	219.612	
DNF 080x30-13-4 -A			4	760.745	281.257	
DNF 080x30-13-5 -A			5	950.931	340.757	
DNF 080x30-13-6 -A	6		1.141.117	398.604		
DNF 080x30-16-3 -A	15,875		3	784.319	319.976	
DNF 080x30-16-4 -A			4	1.045.759	409.793	
DNF 080x30-16-5 -A			5	1.307.198	496.486	
DNF 080x30-16-6 -A	6		1.568.638	580.768		
DNF 080x40-10-3 -A	40	9,525	3	380.120	134.470	
DNF 080x40-10-4 -A			4	506.827	172.216	
DNF 080x40-10-5 -A			5	633.534	208.649	
DNF 080x40-10-6 -A		6	760.241	244.069		
DNF 080x40-13-3 -A		12,7	3	596.143	226.872	
DNF 080x40-13-4 -A			4	794.857	290.555	
DNF 080x40-13-5 -A			5	993.571	352.023	
DNF 080x40-13-6 -A		6	1.192.285	411.782		
DNF 080x40-16-3 -A		15,875	3	829.338	333.173	
DNF 080x40-16-4 -A			4	1.105.784	426.694	
DNF 080x40-16-5 -A			5	1.382.230	516.963	
DNF 080x40-16-6 -A		6	1.658.676	604.721		

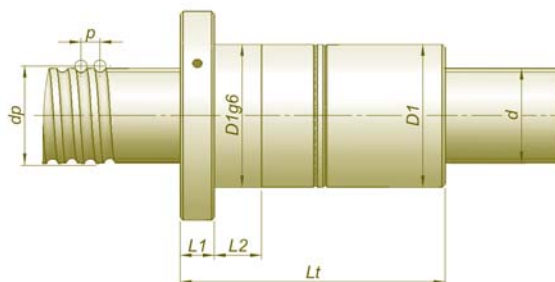
Ca: Dynamic Load Coa: Static Load nc: Circuit numbers



D1g6	D2 (±0,1)	D3 (±0,1)	D4	Nº of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
130	180	155	17,5	8	M8x1	25	25	157,5	135	230
130	180	155	17,5	8	M8x1	25	25	157,5	135	270
130	180	155	17,5	8	M8x1	25	25	157,5	135	310
130	180	155	17,5	8	M8x1	25	25	157,5	135	350
140	190	165	17,5	8	M8x1	25	25	167,5	145	240
140	190	165	17,5	8	M8x1	25	25	167,5	145	280
140	190	165	17,5	8	M8x1	25	25	167,5	145	320
140	190	165	17,5	8	M8x1	25	25	167,5	145	360
130	180	155	17,5	8	M8x1	30	30	157,5	135	270
130	180	155	17,5	8	M8x1	30	30	157,5	135	320
130	180	155	17,5	8	M8x1	30	30	157,5	135	370
130	180	155	17,5	8	M8x1	30	30	157,5	135	420
140	190	165	17,5	8	M8x1	30	30	167,5	145	280
140	190	165	17,5	8	M8x1	30	30	167,5	145	330
140	190	165	17,5	8	M8x1	30	30	167,5	145	380
140	190	165	17,5	8	M8x1	30	30	167,5	145	430
150	200	175	17,5	8	M8x1	30	30	177,5	155	285
150	200	175	17,5	8	M8x1	30	30	177,5	155	335
150	200	175	17,5	8	M8x1	30	30	177,5	155	385
150	200	175	17,5	8	M8x1	30	30	177,5	155	435
130	180	155	17,5	8	M8x1	35	35	157,5	135	300
130	180	155	17,5	8	M8x1	35	35	157,5	135	360
130	180	155	17,5	8	M8x1	35	35	157,5	135	420
130	180	155	17,5	8	M8x1	35	35	157,5	135	480
140	190	165	17,5	8	M8x1	35	35	167,5	145	310
140	190	165	17,5	8	M8x1	35	35	167,5	145	370
140	190	165	17,5	8	M8x1	35	35	167,5	145	430
140	190	165	17,5	8	M8x1	35	35	167,5	145	490
150	200	175	17,5	8	M8x1	35	35	177,5	155	315
150	200	175	17,5	8	M8x1	35	35	177,5	155	375
150	200	175	17,5	8	M8x1	35	35	177,5	155	435
150	200	175	17,5	8	M8x1	35	35	177,5	155	495
130	180	155	17,5	8	M8x1	40	40	157,5	135	380
130	180	155	17,5	8	M8x1	40	40	157,5	135	460
130	180	155	17,5	8	M8x1	40	40	157,5	135	540
130	180	155	17,5	8	M8x1	40	40	157,5	135	620
140	190	165	17,5	8	M8x1	40	40	167,5	145	390
140	190	165	17,5	8	M8x1	40	40	167,5	145	470
140	190	165	17,5	8	M8x1	40	40	167,5	145	550
140	190	165	17,5	8	M8x1	40	40	167,5	145	630
150	200	175	17,5	8	M8x1	40	40	177,5	155	395
150	200	175	17,5	8	M8x1	40	40	177,5	155	475
150	200	175	17,5	8	M8x1	40	40	177,5	155	555
150	200	175	17,5	8	M8x1	40	40	177,5	155	635

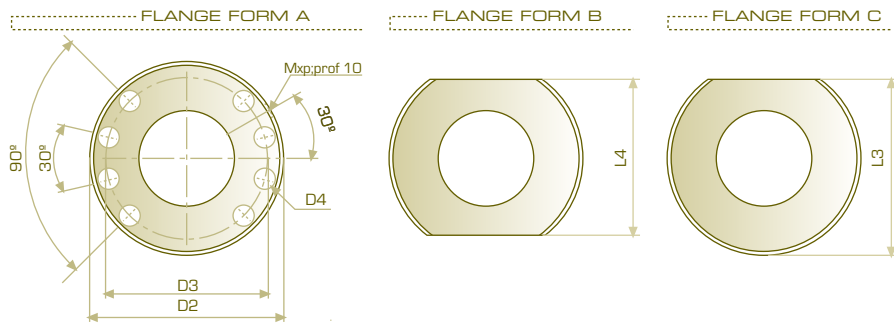
DOUBLE NUT FLANGED

AXIAL
DEFLECTORS



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)
DNF 100x20-10-3 -A	100	20	9,525	3	487.453	148.780
DNF 100x20-10-4 -A				4	649.937	190.543
DNF 100x20-10-5 -A				5	812.421	230.853
DNF 100x20-10-6 -A			6	974.905	270.042	
DNF 100x20-13-3 -A			12,7	3	724.623	243.918
DNF 100x20-13-4 -A				4	966.164	312.386
DNF 100x20-13-5 -A		5		1.207.705	378.472	
DNF 100x20-13-6 -A		6	1.449.246	442.721		
DNF 100x25-10-3 -A		25	9,525	3	486.933	148.780
DNF 100x25-10-4 -A				4	649.244	190.543
DNF 100x25-10-5 -A				5	811.555	230.853
DNF 100x25-10-6 -A			6	973.866	270.042	
DNF 100x25-13-3 -A			12,7	3	723.865	243.918
DNF 100x25-13-4 -A				4	965.153	312.386
DNF 100x25-13-5 -A				5	1.206.442	378.472
DNF 100x25-13-6 -A			6	1.447.730	442.721	
DNF 100x25-16-3 -A			15,875	3	997.857	358.945
DNF 100x25-16-4 -A				4	1.330.476	459.701
DNF 100x25-16-5 -A				5	1.663.095	556.952
DNF 100x25-16-6 -A			6	1.995.715	651.499	
DNF 100x30-10-2 -A		30	9,525	2	324.200	104.980
DNF 100x30-10-3 -A				3	486.300	148.780
DNF 100x30-10-5 -A				5	810.499	230.853
DNF 100x30-13-2 -A			12,7	2	481.961	172.110
DNF 100x30-13-3 -A	3			722.942	243.918	
DNF 100x30-13-5 -A	5			1.204.903	378.472	
DNF 100x30-16-2 -A	15,875		2	664.406	253.273	
DNF 100x30-16-3 -A			3	996.608	358.945	
DNF 100x30-16-5 -A			5	1.661.014	556.952	
DNF 100x40-10-3 -A	40		9,525	3	484.699	148.780
DNF 100x40-10-4 -A				4	646.265	190.543
DNF 100x40-13-3 -A			12,7	3	720.607	243.918
DNF 100x40-13-4 -A		4		960.809	312.386	
DNF 100x40-16-3 -A		15,875	3	993.450	358.945	
DNF 100x40-16-4 -A			4	1.324.600	459.701	
DNF 100x50-10-2 -A	50	9,525	2	321.776	104.980	
DNF 100x50-10-3 -A			3	482.664	148.780	
DNF 100x50-13-2 -A		12,7	2	497.563	176.669	
DNF 100x50-13-3 -A			3	746.344	250.380	
DNF 100x50-16-2 -A		15,875	2	692.603	261.647	
DNF 100x50-16-3 -A			3	1.038.905	370.812	
DNF 100x60-10-2 -A	60	9,525	2	320.141	104.980	
DNF 100x60-10-3 -A			3	480.211	148.780	
DNF 100x60-13-2 -A		12,7	2	495.081	176.669	
DNF 100x60-13-3 -A			3	742.622	250.380	
DNF 100x60-16-2 -A		15,875	2	689.212	261.647	
DNF 100x60-16-3 -A			3	1.033.819	370.812	

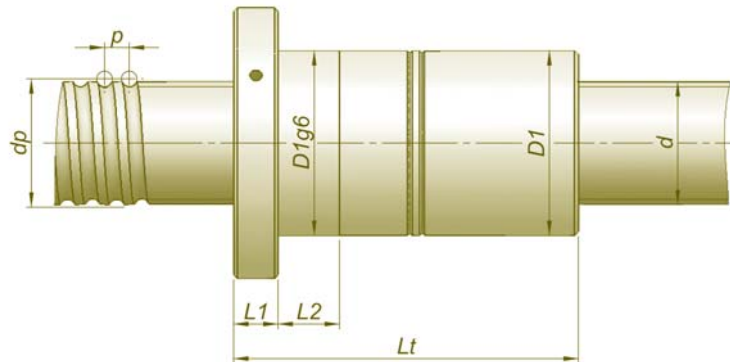
Ca: Dynamic Load Coa: Static Load Nc: Circuit numbers



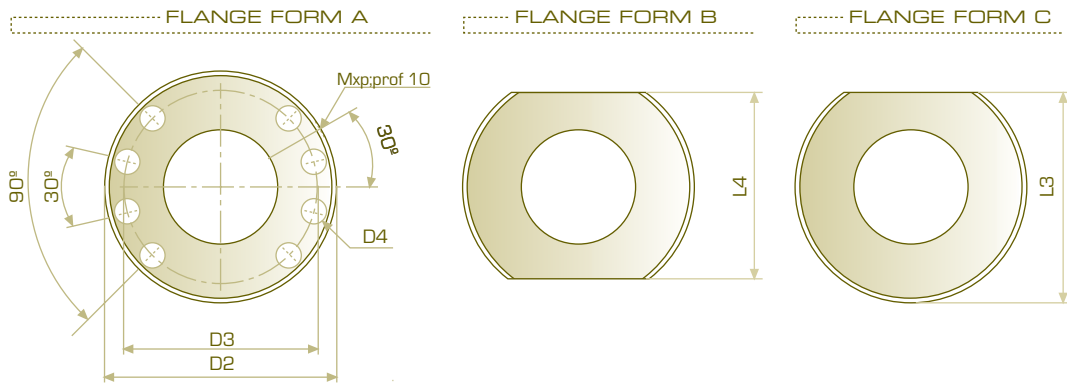
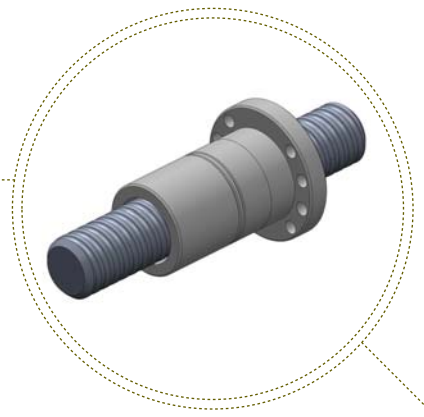
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
150	200	175	17,5	8	M8x1	25	25	177,5	155	230
150	200	175	17,5	8	M8x1	25	25	177,5	155	270
150	200	175	17,5	8	M8x1	25	25	177,5	155	310
150	200	175	17,5	8	M8x1	25	25	177,5	155	350
160	210	185	17,5	8	M8x1	25	25	187,5	165	240
160	210	185	17,5	8	M8x1	25	25	187,5	165	280
160	210	185	17,5	8	M8x1	25	25	187,5	165	320
160	210	185	17,5	8	M8x1	25	25	187,5	165	360
150	200	175	17,5	8	M8x1	30	30	177,5	155	270
150	200	175	17,5	8	M8x1	30	30	177,5	155	320
150	200	175	17,5	8	M8x1	30	30	177,5	155	370
150	200	175	17,5	8	M8x1	30	30	177,5	155	420
160	210	185	17,5	8	M8x1	30	30	187,5	165	280
160	210	185	17,5	8	M8x1	30	30	187,5	165	330
160	210	185	17,5	8	M8x1	30	30	187,5	165	380
160	210	185	17,5	8	M8x1	30	30	187,5	165	430
170	220	195	17,5	8	M8x1	30	30	197,5	175	285
170	220	195	17,5	8	M8x1	30	30	197,5	175	335
170	220	195	17,5	8	M8x1	30	30	197,5	175	385
170	220	195	17,5	8	M8x1	30	30	197,5	175	435
150	200	175	17,5	8	M8x1	35	35	177,5	155	240
150	200	175	17,5	8	M8x1	35	35	177,5	155	300
150	200	175	17,5	8	M8x1	35	35	177,5	155	420
160	210	185	17,5	8	M8x1	35	35	187,5	165	250
160	210	185	17,5	8	M8x1	35	35	187,5	165	310
160	210	185	17,5	8	M8x1	35	35	187,5	165	430
170	220	195	17,5	8	M8x1	35	35	197,5	175	255
170	220	195	17,5	8	M8x1	35	35	197,5	175	315
170	220	195	17,5	8	M8x1	35	35	197,5	175	435
150	200	175	17,5	8	M8x1	40	40	177,5	155	380
150	200	175	17,5	8	M8x1	40	40	177,5	155	460
160	210	185	17,5	8	M8x1	40	40	187,5	165	390
160	210	185	17,5	8	M8x1	40	40	187,5	165	470
170	220	195	17,5	8	M8x1	40	40	197,5	175	395
170	220	195	17,5	8	M8x1	40	40	197,5	175	475
150	200	175	17,5	8	M8x1	40	40	177,5	155	340
150	200	175	17,5	8	M8x1	40	40	177,5	155	440
160	210	185	17,5	8	M8x1	40	40	187,5	165	350
160	210	185	17,5	8	M8x1	40	40	187,5	165	450
170	220	195	17,5	8	M8x1	40	40	197,5	175	355
170	220	195	17,5	8	M8x1	40	40	197,5	175	455
150	200	175	17,5	8	M8x1	40	40	177,5	155	380
150	200	175	17,5	8	M8x1	40	40	177,5	155	500
160	210	185	17,5	8	M8x1	40	40	187,5	165	390
160	210	185	17,5	8	M8x1	40	40	187,5	165	510
170	220	195	17,5	8	M8x1	40	40	197,5	175	395
170	220	195	17,5	8	M8x1	40	40	197,5	175	515

DOUBLE NUT FLANGED

AXIAL
DEFLECTORS



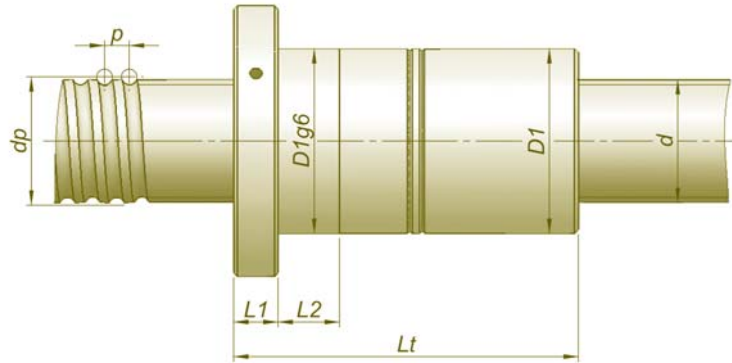
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)
DNF 120x20-13-4 -A	120	20	12,7	4	1.032.393	501.161
DNF 120x20-13-6 -A				6	1.750.375	479.759
DNF 120x25-13-4 -A				4	1.164.255	338.520
DNF 120x25-13-6 -A				6	1.543.744	710.257
DNF 120x25-16-4 -A				4	1.451.896	686.953
DNF 120x25-16-6 -A				6	2.720.763	479.759
DNF 120x30-13-2 -A		30	12,7	2	463.294	378.478
DNF 120x30-13-5 -A				5	1.494.133	419.200
DNF 120x30-16-2 -A				2	832.219	283.733
DNF 120x30-16-5 -A				5	1.893.707	859.797
DNF 120x30-20-2 -A				2	1.090.775	390.992
DNF 120x30-20-5 -A				5	3.402.378	415.132
DNF 120x40-13-3 -A		40	12,7	3	808.206	398.660
DNF 120x40-13-4 -A				4	1.077.608	510.564
DNF 120x40-16-3 -A				3	1.149.684	550.055
DNF 120x40-16-4 -A				4	1.532.912	704.455
DNF 120x40-20-3 -A				3	2.104.091	273.268
DNF 120x40-20-4 -A				4	2.805.455	349.974
DNF 120x50-13-2 -A		50	12,7	2	490.136	388.122
DNF 120x50-13-3 -A				3	735.204	550.055
DNF 120x50-16-2 -A				2	972.062	192.819
DNF 120x50-16-3 -A				3	1.458.092	273.268
DNF 120x50-20-2 -A				2	1.399.769	192.819
DNF 120x50-20-3 -A				3	2.099.653	273.268
DNF 120x60-13-2 -A		60	12,7	2	620.441	192.819
DNF 120x60-13-3 -A				3	930.661	273.268
DNF 120x60-16-2 -A				2	837.213	281.296
DNF 120x60-16-3 -A				3	1.255.820	398.660
DNF 120x60-20-2 -A				2	1.097.669	388.122
DNF 120x60-20-3 -A				3	1.646.503	550.055



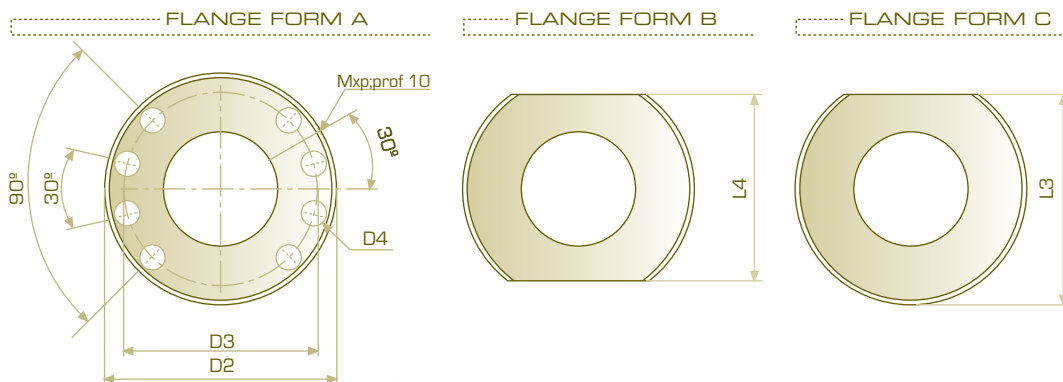
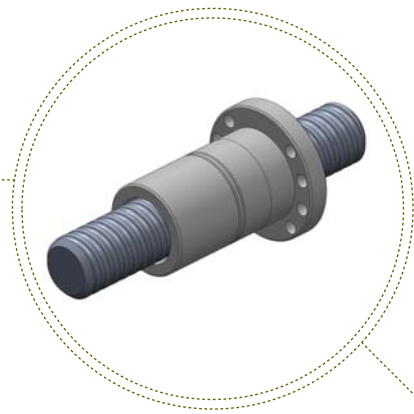
D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
180	230	205	17,5	8	M8x1	25	25	207,5	185	280
180	230	205	17,5	8	M8x1	25	25	207,5	185	360
180	230	205	17,5	8	M8x1	30	30	207,5	185	330
180	230	205	17,5	8	M8x1	30	30	207,5	185	430
190	240	215	17,5	8	M8x1	30	30	217,5	195	335
190	240	215	17,5	8	M8x1	30	30	217,5	195	435
180	230	205	17,5	8	M8x1	35	35	207,5	185	250
180	230	205	17,5	8	M8x1	35	35	207,5	185	430
190	240	215	17,5	8	M8x1	35	35	217,5	195	255
190	240	215	17,5	8	M8x1	35	35	217,5	195	435
200	250	225	17,5	8	M8x1	35	35	227,5	205	260
200	250	225	17,5	8	M8x1	35	35	227,5	205	440
180	230	205	17,5	8	M8x1	40	40	207,5	185	390
180	230	205	17,5	8	M8x1	40	40	207,5	185	470
190	240	215	17,5	8	M8x1	40	40	217,5	195	395
190	240	215	17,5	8	M8x1	40	40	217,5	195	475
200	250	225	17,5	8	M8x1	40	40	227,5	205	400
200	250	225	17,5	8	M8x1	40	40	227,5	205	480
180	230	205	17,5	8	M8x1	40	40	207,5	185	350
180	230	205	17,5	8	M8x1	40	40	207,5	185	450
190	240	215	17,5	8	M8x1	40	40	217,5	195	355
190	240	215	17,5	8	M8x1	40	40	217,5	195	455
200	250	225	17,5	8	M8x1	40	40	227,5	205	360
200	250	225	17,5	8	M8x1	40	40	227,5	205	460
180	230	205	17,5	8	M8x1	40	40	207,5	185	390
180	230	205	17,5	8	M8x1	40	40	207,5	185	510
190	240	215	17,5	8	M8x1	40	40	217,5	195	395
190	240	215	17,5	8	M8x1	40	40	217,5	195	515
200	250	225	17,5	8	M8x1	40	40	227,5	205	400
200	250	225	17,5	8	M8x1	40	40	227,5	205	520

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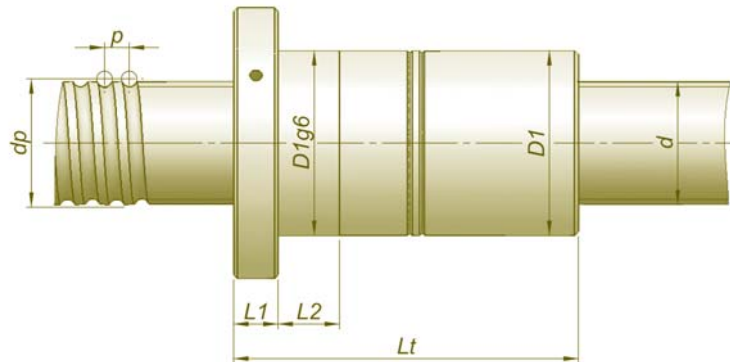
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)			
DNF 125x20-13-4 -A	125	20	12,7	4	972.603	704.455			
DNF 125x20-13-6 -A				6	2.057.192	512.032			
DNF 125x25-13-4 -A				25	15,875	4	1.128.191	753.259	
DNF 125x25-13-6 -A						6	2.054.692	512.032	
DNF 125x25-16-4 -A						19,05	4	1.894.439	536.959
DNF 125x25-16-6 -A							6	2.642.478	1.067.537
DNF 125x25-20-4 -A		4	3.076.811				361.292		
DNF 125x25-20-6 -A		6	4.085.144				760.992		
DNF 125x30-13-2 -A		30	12,7	2	682.251	199.055			
DNF 125x30-13-4 -A				5	1.509.775	650.555			
DNF 125x30-16-2 -A				15,875	2	877.514	415.010		
DNF 125x30-16-5 -A					5	2.658.005	437.725		
DNF 125x30-20-2 -A					2	1.531.011	199.055		
DNF 125x30-20-5 -A					5	3.388.144	650.555		
DNF 125x40-13-3 -A		40	12,7	3	1.177.901	297.990			
DNF 125x40-13-4 -A				4	1.570.535	381.636			
DNF 125x40-16-3 -A				15,875	3	1.043.661	444.060		
DNF 125x40-16-4 -A					4	1.391.547	568.707		
DNF 125x40-20-3 -A					3	2.151.738	618.297		
DNF 125x40-20-4 -A					4	2.868.984	791.852		
DNF 125x50-13-2 -A		50	12,7	2	693.217	313.331			
DNF 125x50-13-3 -A				3	1.039.825	444.060			
DNF 125x50-16-2 -A				15,875	2	992.558	436.273		
DNF 125x50-16-3 -A					3	1.488.837	618.297		
DNF 125x50-20-2 -A	2				1.995.176	220.454			
DNF 125x50-20-3 -A	3				2.992.763	312.433			
DNF 125x60-13-2 -A	60	12,7	2	712.166	455.499				
DNF 125x60-13-3 -A			3	1.068.249	645.545				
DNF 125x60-16-2 -A			15,875	2	1.033.958	602.388			
DNF 125x60-16-3 -A				3	1.550.937	853.718			
DNF 125x60-20-2 -A				2	1.989.266	220.454			
DNF 125x60-20-3 -A				3	2.983.899	312.433			



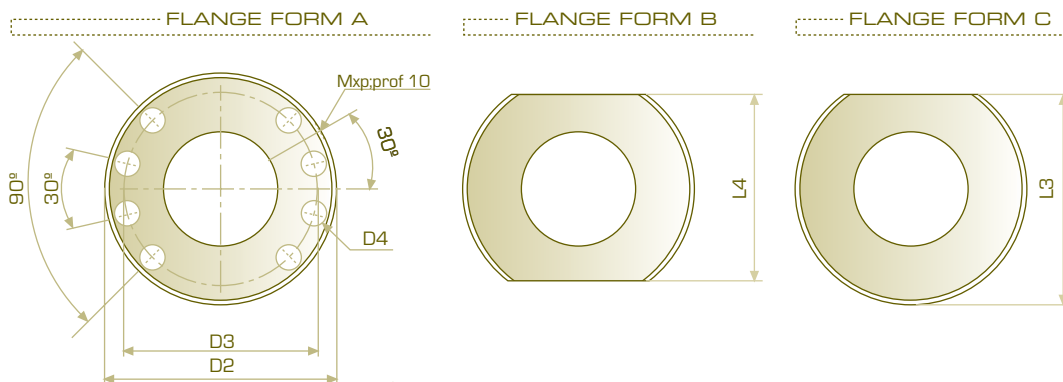
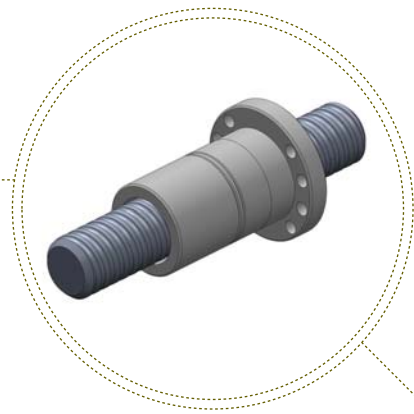
D1 ₉₆	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
185	235	210	17,5	8	M8x1	25	25	212,5	190	280
185	235	210	17,5	8	M8x1	25	25	212,5	190	360
185	235	210	17,5	8	M8x1	30	30	212,5	190	330
185	235	210	17,5	8	M8x1	30	30	212,5	190	430
195	245	220	17,5	8	M8x1	30	30	222,5	200	335
195	245	220	17,5	8	M8x1	30	30	222,5	200	435
205	255	230	17,5	8	M8x1	30	30	232,5	210	340
205	255	230	17,5	8	M8x1	30	30	232,5	210	440
185	235	210	17,5	8	M8x1	35	35	212,5	190	250
185	235	210	17,5	8	M8x1	35	35	212,5	190	430
195	245	220	17,5	8	M8x1	35	35	222,5	200	255
195	245	220	17,5	8	M8x1	35	35	222,5	200	435
205	255	230	17,5	8	M8x1	35	35	232,5	210	260
205	255	230	17,5	8	M8x1	35	35	232,5	210	440
185	235	210	17,5	8	M8x1	40	40	212,5	190	390
185	235	210	17,5	8	M8x1	40	40	212,5	190	470
185	235	210	17,5	8	M8x1	40	40	212,5	190	390
185	235	210	17,5	8	M8x1	40	40	212,5	190	470
205	255	230	17,5	8	M8x1	40	40	232,5	210	400
205	255	230	17,5	8	M8x1	40	40	232,5	210	480
185	235	210	17,5	8	M8x1	40	40	212,5	190	350
185	235	210	17,5	8	M8x1	40	40	212,5	190	450
195	245	220	17,5	8	M8x1	40	40	222,5	200	355
195	245	220	17,5	8	M8x1	40	40	222,5	200	455
205	255	230	17,5	8	M8x1	40	40	232,5	210	360
205	255	230	17,5	8	M8x1	40	40	232,5	210	460
185	235	210	17,5	8	M8x1	40	40	212,5	190	350
185	235	210	17,5	8	M8x1	40	40	212,5	190	450
195	245	220	17,5	8	M8x1	40	40	222,5	200	355
195	245	220	17,5	8	M8x1	40	40	222,5	200	455
205	255	230	17,5	8	M8x1	40	40	232,5	210	400
205	255	230	17,5	8	M8x1	40	40	232,5	210	520
200	250	225	17,5	8	M8x1	25	25	227,5	205	280

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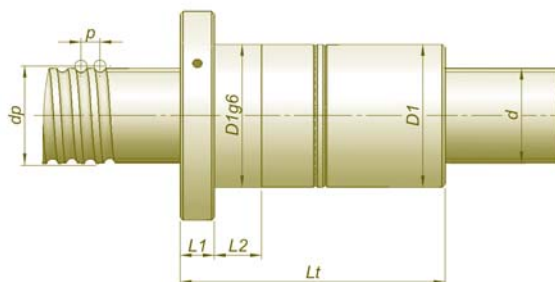
CODE	d	p	Ø ball	nc	C _{0a} (N)	C _a (N)
DNF 140x20-13-4 -A	140	20	12,7	4	1.319.669	1.093.357
DNF 140x20-13-6 -A				6	2.964.548	591.222
DNF 140x25-13-4 -A				4	1.483.324	1.148.361
DNF 140x25-13-6 -A				6	2.957.392	591.222
DNF 140x25-16-4 -A				4	2.733.434	623.720
DNF 140x25-16-6 -A				6	3.790.317	1.241.560
DNF 140x25-20-4 -A		4	3.329.652	1.148.361		
DNF 140x25-20-6 -A		6	7.354.742	613.681		
DNF 140x30-13-2 -A		30	12,7	2	885.045	498.569
DNF 140x30-13-5 -A				5	2.053.999	1.452.522
DNF 140x30-16-2 -A				2	1.699.073	238.572
DNF 140x30-16-5 -A				5	3.770.880	785.217
DNF 140x30-20-2 -A				2	2.172.027	357.077
DNF 140x30-20-5 -A				5	4.968.570	1.096.360
DNF 140x40-13-3 -A		40	12,7	3	1.786.466	349.709
DNF 140x40-13-4 -A				4	2.381.955	447.872
DNF 140x40-16-3 -A				3	2.479.036	523.857
DNF 140x40-16-4 -A				4	3.305.382	670.903
DNF 140x40-20-3 -A				3	3.238.318	727.739
DNF 140x40-20-4 -A				4	4.317.757	932.015
DNF 140x50-13-2 -A		50	12,7	2	1.188.963	246.756
DNF 140x50-13-3 -A				3	1.783.444	349.709
DNF 140x50-16-2 -A				2	1.649.918	369.636
DNF 140x50-16-3 -A				3	2.474.877	523.857
DNF 140x50-20-2 -A	2			2.155.285	513.496	
DNF 140x50-20-3 -A	3			3.232.928	727.739	
DNF 140x60-13-2 -A	60	12,7	2	1.292.346	254.477	
DNF 140x60-13-3 -A			3	1.938.518	360.651	
DNF 140x60-16-2 -A			2	1.794.004	381.455	
DNF 140x60-16-3 -A			3	2.691.006	540.607	
DNF 140x60-20-2 -A			2	2.326.288	527.601	
DNF 140x60-20-3 -A			3	3.489.433	747.728	



D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
200	250	225	17,5	8	M8x1	25	25	227,5	205	280
200	250	225	17,5	8	M8x1	25	25	227,5	205	360
200	250	225	17,5	8	M8x1	30	30	227,5	205	330
200	250	225	17,5	8	M8x1	30	30	227,5	205	430
210	275	242	22	8	M8x1	30	30	245	215	335
210	275	242	22	8	M8x1	30	30	245	215	435
220	285	252	22	8	M8x1	30	30	255	225	340
220	285	252	22	8	M8x1	30	30	255	225	440
200	250	225	17,5	8	M8x1	35	35	227,5	205	250
200	250	225	17,5	8	M8x1	35	35	227,5	205	430
210	275	242	22	8	M8x1	35	35	245	215	255
210	275	242	22	8	M8x1	35	35	245	215	435
220	285	252	22	8	M8x1	35	35	255	225	260
220	285	252	22	8	M8x1	35	35	255	225	440
200	250	225	17,5	8	M8x1	40	40	227,5	205	390
200	250	225	17,5	8	M8x1	40	40	227,5	205	470
210	275	242	22	8	M8x1	40	40	245	215	395
210	275	242	22	8	M8x1	40	40	245	215	475
220	285	252	22	8	M8x1	40	40	255	225	400
220	285	252	22	8	M8x1	40	40	255	225	480
200	250	225	17,5	8	M8x1	40	40	227,5	205	350
200	250	225	17,5	8	M8x1	40	40	227,5	205	450
210	275	242	22	8	M8x1	40	40	245	215	355
210	275	242	22	8	M8x1	40	40	245	215	455
220	285	252	22	8	M8x1	40	40	255	225	360
220	285	252	22	8	M8x1	40	40	255	225	460
200	250	225	17,5	8	M8x1	40	40	227,5	205	390
200	250	225	17,5	8	M8x1	40	40	227,5	205	510
210	275	242	22	8	M8x1	40	40	245	215	395
210	275	242	22	8	M8x1	40	40	245	215	515
220	285	252	22	8	M8x1	40	40	255	225	400
220	285	252	22	8	M8x1	40	40	255	225	520

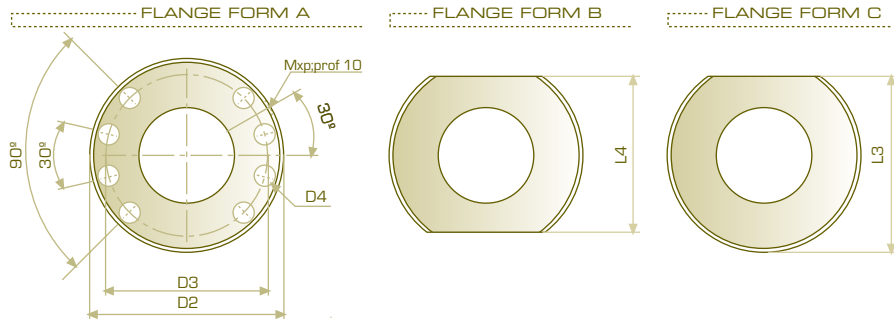
DOUBLE NUT FLANGED

AXIAL
DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)	
DNF 160x40-13-3 -A	160	40	12,7	3	1.808.150	795.481	
DNF 160x40-13-4 -A				4	2.410.867	1.018.772	
DNF 160x40-16-3 -A			15,875	3	2.611.552	1.053.348	
DNF 160x40-16-4 -A				4	3.482.069	1.349.022	
DNF 160x40-20-3 -A			19,05	3	2.151.738	618.297	
DNF 160x40-20-4 -A				4	2.868.984	791.852	
DNF 160x60-13-2 -A		60	40	12,7	2	782.347	210.263
DNF 160x60-13-3 -A					3	1.173.520	297.990
DNF 160x60-16-2 -A				15,875	2	1.083.151	313.331
DNF 160x60-16-3 -A			3		1.624.727	444.060	
DNF 160x60-20-2 -A			19,05	2	1.429.283	436.273	
DNF 160x60-20-3 -A				3	2.143.925	618.297	
DNF 180x40-13-3 -A	180	40	12,7	3	1.330.117	312.433	
DNF 180x40-13-4 -A				4	1.773.489	400.133	
DNF 180x40-16-3 -A			15,875	3	1.842.186	466.469	
DNF 180x40-16-4 -A				4	2.457.186	597.407	
DNF 180x40-20-3 -A			19,05	3	2.403.560	645.545	
DNF 180x40-20-4 -A				4	3.204.746	826.749	
DNF 180x40-22-3 -A		60	40	22,225	3	3.039.836	853.718
DNF 180x40-22-4 -A					4	4.053.115	1.093.357
DNF 180x60-13-2 -A				12,7	2	884.118	220.454
DNF 180x60-13-3 -A			3		1.326.177	312.433	
DNF 180x60-16-2 -A			15,875	2	1.224.993	329.143	
DNF 180x60-16-3 -A				3	1.837.489	466.469	
DNF 180x60-20-2 -A	19,05	2	1.597.727	455.499			
DNF 180x60-20-3 -A		3	2.396.591	645.545			
DNF 180x60-22-2 -A	22,225	2	2.020.744	602.388			
DNF 180x60-22-3 -A		3	3.031.116	853.718			
DNF 200x40-13-3 -A	200	40	12,7	3	1.482.274	325.735	
DNF 200x40-13-4 -A				4	1.976.366	417.169	
DNF 200x40-16-3 -A			15,875	3	2.054.988	487.015	
DNF 200x40-16-4 -A				4	2.739.985	623.720	
DNF 200x40-20-3 -A			19,05	3	2.735.505	684.041	
DNF 200x40-20-4 -A				4	3.647.340	876.051	
DNF 200x40-22-3 -A		60	40	22,225	3	3.407.009	896.667
DNF 200x40-22-4 -A					4	4.542.679	1.148.361
DNF 200x60-13-2 -A				12,7	2	985.797	229.841
DNF 200x60-13-3 -A			3		1.478.696	325.735	
DNF 200x60-16-2 -A			15,875	2	1.366.717	343.640	
DNF 200x60-16-3 -A				3	2.050.075	487.015	
DNF 200x60-20-2 -A	19,05	2	1.819.352	482.662			
DNF 200x60-20-3 -A		3	2.729.028	684.041			
DNF 200x60-22-2 -A	22,225	2	2.266.013	632.692			
DNF 200x60-22-3 -A		3	3.399.019	896.667			

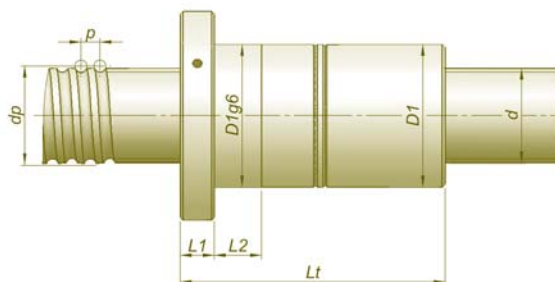
Ca: Dynamic Load Coa: Static Load nc: Circuit numbers



D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
220	285	252	22	8	M10x1	40	40	255	225	390
220	285	252	22	8	M10x1	40	40	255	225	470
230	295	262	22	8	M10x1	40	40	265	235	395
230	295	262	22	8	M10x1	40	40	265	235	475
240	305	272	22	8	M10x1	40	40	275	245	400
240	305	272	22	8	M10x1	40	40	275	245	480
220	285	252	22	8	M10x1	40	40	255	225	390
220	285	252	22	8	M10x1	40	40	255	225	510
230	295	262	22	8	M10x1	40	40	265	235	395
230	295	262	22	8	M10x1	40	40	265	235	515
240	305	272	22	8	M10x1	40	40	275	245	400
240	305	272	22	8	M10x1	40	40	275	245	520
240	305	272	22	8	M10x1	40	40	275	245	390
240	305	272	22	8	M10x1	40	40	275	245	470
250	315	282	22	8	M10x1	40	40	285	255	395
250	315	282	22	8	M10x1	40	40	285	255	475
260	325	292	22	8	M10x1	40	40	295	265	400
260	325	292	22	8	M10x1	40	40	295	265	480
270	335	302	22	8	M10x1	40	40	305	275	410
270	335	302	22	8	M10x1	40	40	305	275	490
240	305	272	22	8	M10x1	40	40	275	245	390
240	305	272	22	8	M10x1	40	40	275	245	510
250	315	282	22	8	M10x1	40	40	285	255	395
250	315	282	22	8	M10x1	40	40	285	255	515
260	325	292	22	8	M10x1	40	40	295	265	400
260	325	292	22	8	M10x1	40	40	295	265	520
270	335	302	22	8	M10x1	40	40	305	275	410
270	335	302	22	8	M10x1	40	40	305	275	530
260	325	292	22	8	M10x1	40	40	295	265	390
260	325	292	22	8	M10x1	40	40	295	265	470
270	335	302	22	8	M10x1	40	40	305	275	395
270	335	302	22	8	M10x1	40	40	305	275	475
280	345	312	22	8	M10x1	40	40	315	285	400
280	345	312	22	8	M10x1	40	40	315	285	480
290	355	322	22	8	M10x1	40	40	325	295	410
290	355	322	22	8	M10x1	40	40	325	295	490
260	325	292	22	8	M10x1	40	40	295	265	390
260	325	292	22	8	M10x1	40	40	295	265	510
270	335	302	22	8	M10x1	40	40	305	275	395
270	335	302	22	8	M10x1	40	40	305	275	515
280	345	312	22	8	M10x1	40	40	315	285	400
280	345	312	22	8	M10x1	40	40	315	285	520
290	355	322	22	8	M10x1	40	40	325	295	410
290	355	322	22	8	M10x1	40	40	325	295	530

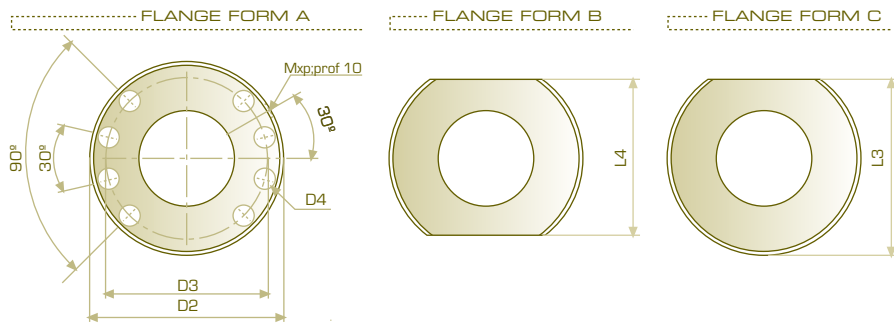
DOUBLE NUT FLANGED

AXIAL
DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)	
DNF 220x40-13-3 -A	220	40	12,7	3	1.634.387	338.109	
DNF 220x40-13-4 -A				4	2.179.183	433.016	
DNF 220x40-16-3 -A			15,875	3	2.267.033	506.058	
DNF 220x40-16-4 -A				4	3.022.711	648.108	
DNF 220x40-20-3 -A			19,05	3	2.987.026	706.583	
DNF 220x40-20-4 -A				4	3.982.702	904.921	
DNF 220x40-22-3 -A		22,225	3	3.774.224	936.123		
DNF 220x40-22-4 -A			4	5.032.299	1.198.982		
DNF 220x60-13-2 -A		220	60	12,7	2	1.087.407	238.572
DNF 220x60-13-3 -A					3	1.631.110	338.109
DNF 220x60-16-2 -A				15,875	2	1.508.352	357.077
DNF 220x60-16-3 -A					3	2.262.528	506.058
DNF 220x60-20-2 -A	19,05			2	1.987.428	498.569	
DNF 220x60-20-3 -A				3	2.981.142	706.583	
DNF 220x60-22-2 -A	22,225		2	2.511.236	660.533		
DNF 220-60-22-3 -A			3	3.766.854	936.123		
DNF 240x40-13-3 -A	240		40	12,7	3	1.786.466	349.709
DNF 240x40-13-4 -A					4	2.381.955	447.872
DNF 240x40-16-3 -A				15,875	3	2.479.036	523.857
DNF 240x40-16-4 -A					4	3.305.382	670.903
DNF 240x40-20-3 -A		19,05		3	3.238.318	727.739	
DNF 240x40-20-4 -A				4	4.317.757	932.015	
DNF 240x40-22-3 -A		22,225	3	4.023.139	954.106		
DNF 240x40-22-4 -A			4	5.364.186	1.221.924		
DNF 240x60-13-2 -A		240	60	12,7	2	1.188.963	246.756
DNF 240x60-13-3 -A					3	1.783.444	349.709
DNF 240x60-16-2 -A				15,875	2	1.649.918	369.636
DNF 240x60-16-3 -A					3	2.474.877	523.857
DNF 240x60-20-2 -A	19,05			2	2.155.285	513.496	
DNF 240x60-20-3 -A				3	3.232.928	727.739	
DNF 240x60-22-2 -A	22,225		2	2.756.420	686.359		
DNF 240x60-22-3 -A			3	4.134.630	972.724		
DNF 260x40-13-3 -A	260		40	12,7	3	1.938.518	360.651
DNF 260x40-13-4 -A					4	2.584.691	461.886
DNF 260x40-16-3 -A				15,875	3	2.691.006	540.607
DNF 260x40-16-4 -A					4	3.588.009	692.356
DNF 260x40-20-3 -A		19,05		3	3.489.433	747.728	
DNF 260x40-20-4 -A				4	4.652.577	957.615	
DNF 260x40-22-3 -A		22,225	3	4.390.079	989.201		
DNF 260x40-22-4 -A			4	5.853.439	1.266.869		
DNF 260x60-13-2 -A		260	60	12,7	2	1.290.477	254.477
DNF 260x60-13-3 -A					3	1.935.715	360.651
DNF 260x60-16-2 -A				15,875	2	1.791.429	381.455
DNF 260x60-16-3 -A					3	2.687.144	540.607
DNF 260x60-20-2 -A	19,05			2	2.322.974	527.601	
DNF 260x60-20-3 -A				3	3.484.462	747.728	
DNF 260x60-22-2 -A	22,225		2	2.922.581	697.985		
DNF 260x60-22-3 -A			3	4.383.872	989.201		

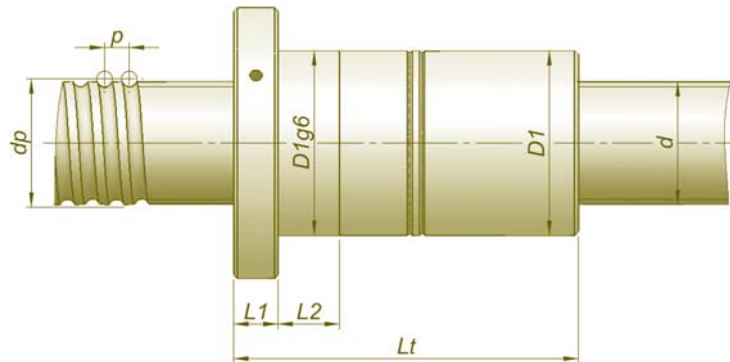
Ca: Dynamic Load Coa: Static Load nc: Circuit numbers



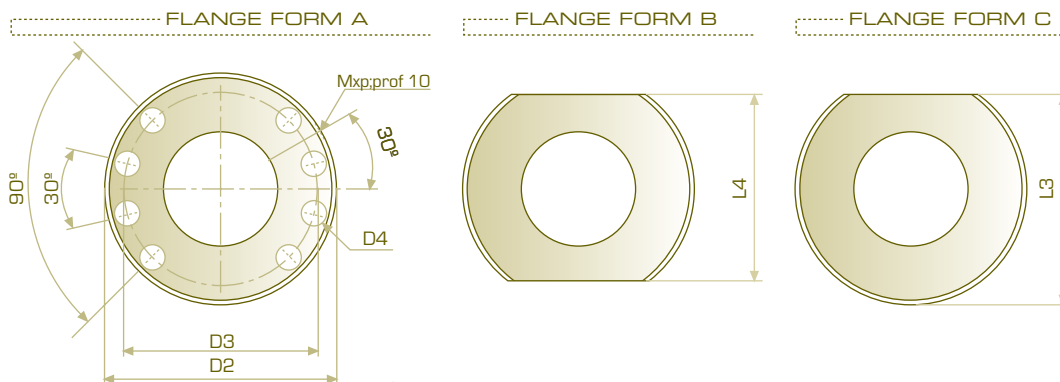
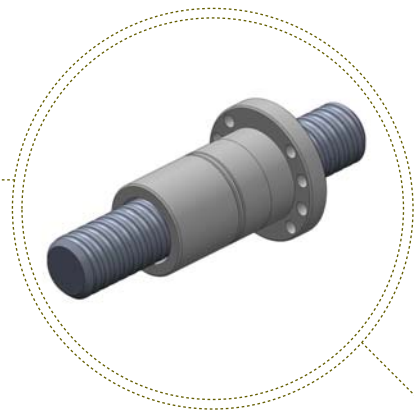
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
280	345	312	22	8	M10x1	40	40	315	285	390
280	345	312	22	8	M10x1	40	40	315	285	470
290	355	322	22	8	M10x1	40	40	325	295	395
290	355	322	22	8	M10x1	40	40	325	295	475
300	365	332	22	8	M10x1	40	40	335	305	400
300	365	332	22	8	M10x1	40	40	335	305	480
310	375	342	22	8	M10x1	40	40	345	315	410
310	375	342	22	8	M10x1	40	40	345	315	490
280	345	312	22	8	M10x1	40	40	315	285	390
280	345	312	22	8	M10x1	40	40	315	285	510
290	355	322	22	8	M10x1	40	40	325	295	395
290	355	322	22	8	M10x1	40	40	325	295	515
300	365	332	22	8	M10x1	40	40	335	305	400
300	365	332	22	8	M10x1	40	40	335	305	520
310	375	342	22	8	M10x1	40	40	345	315	410
310	375	342	22	8	M10x1	40	40	345	315	530
300	365	332	22	8	M10x1	40	40	335	305	390
300	365	332	22	8	M10x1	40	40	335	305	470
310	375	342	22	8	M10x1	40	40	345	315	395
310	375	342	22	8	M10x1	40	40	345	315	475
320	385	352	22	8	M10x1	40	40	355	325	400
320	385	352	22	8	M10x1	40	40	355	325	480
330	395	362	22	8	M10x1	40	40	365	335	410
330	395	362	22	8	M10x1	40	40	365	335	490
300	365	332	22	8	M10x1	40	40	335	305	390
300	365	332	22	8	M10x1	40	40	335	305	510
310	375	342	22	8	M10x1	40	40	345	315	395
310	375	342	22	8	M10x1	40	40	345	315	515
320	385	352	22	8	M10x1	40	40	355	325	400
320	385	352	22	8	M10x1	40	40	355	325	520
330	395	362	22	8	M10x1	40	40	365	335	410
330	395	362	22	8	M10x1	40	40	365	335	530
320	385	352	22	8	M10x1	40	40	355	325	390
320	385	352	22	8	M10x1	40	40	355	325	470
330	395	362	22	8	M10x1	40	40	365	335	395
330	395	362	22	8	M10x1	40	40	365	335	475
340	405	372	22	8	M10x1	40	40	375	345	400
340	405	372	22	8	M10x1	40	40	375	345	480
350	415	382	22	8	M10x1	40	40	385	355	410
350	415	382	22	8	M10x1	40	40	385	355	490
320	385	352	22	8	M10x1	40	40	355	325	390
320	385	352	22	8	M10x1	40	40	355	325	510
330	395	362	22	8	M10x1	40	40	365	335	395
330	395	362	22	8	M10x1	40	40	365	335	515
340	405	372	22	8	M10x1	40	40	375	345	400
340	405	372	22	8	M10x1	40	40	375	345	520
350	415	382	22	8	M10x1	40	40	385	355	410
350	415	382	22	8	M10x1	40	40	385	355	530

DOUBLE NUT FLANGED

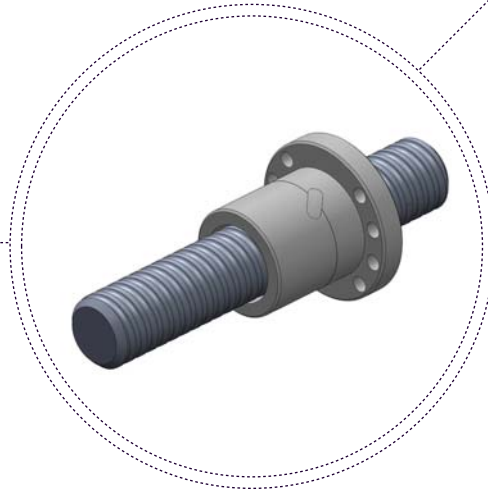
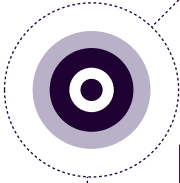
AXIAL
DEFLECTORS



CODE	d	p	Ø ball	nc	C _{oa} (N)	C _a (N)	
DNF 280x40-13-3 -A	280	40	12,7	3	2.090.549	371.026	
DNF 280x40-13-4 -A				4	2.787.399	475.173	
DNF 280x40-16-3 -A			15,875	3	2.902.950	556.459	
DNF 280x40-16-4 -A				4	3.870.600	712.657	
DNF 280x40-20-3 -A			19,05	3	3.821.721	777.790	
DNF 280x40-20-4 -A				4	5.095.629	996.116	
DNF 280x40-22-3 -A		22,225	3	4.757.080	1.022.182		
DNF 280x40-22-4 -A			4	6.342.773	1.309.108		
DNF 280x60-13-2 -A		60	60	12,7	2	1.391.957	261.798
DNF 280x60-13-3 -A					3	2.087.935	371.026
DNF 280x60-16-2 -A				15,875	2	1.932.897	392.640
DNF 280x60-16-3 -A					3	2.899.346	556.459
DNF 280x60-20-2 -A	19,05			2	2.544.673	548.812	
DNF 280x60-20-3 -A				3	3.817.009	777.790	
DNF 280x60-22-2 -A	22,225		2	3.167.503	721.257		
DNF 280x60-22-3 -A			3	4.751.254	1.022.182		
DNF 300x40-13-3 -A	300		40	12,7	3	2.242.563	380.906
DNF 300x40-13-4 -A					4	2.990.084	487.826
DNF 300x40-16-3 -A				15,875	3	3.114.873	571.529
DNF 300x40-16-4 -A					4	4.153.163	731.957
DNF 300x40-20-3 -A		19,05		3	4.072.727	795.481	
DNF 300x40-20-4 -A				4	5.430.303	1.018.772	
DNF 300x40-22-3 -A		22,225	3	5.124.128	1.053.348		
DNF 300x40-22-4 -A			4	6.832.171	1.349.022		
DNF 300x60-13-2 -A		60	60	12,7	2	1.493.410	268.769
DNF 300x60-13-3 -A					3	2.240.115	380.906
DNF 300x60-16-2 -A				15,875	2	2.074.329	403.274
DNF 300x60-16-3 -A					3	3.111.494	571.529
DNF 300x60-20-2 -A	19,05			2	2.712.225	561.295	
DNF 300x60-20-3 -A				3	4.068.338	795.481	
DNF 300x60-22-2 -A	22,225		2	3.412.428	743.247		
DNF 300x60-22-3 -A			3	5.118.642	1.053.348		

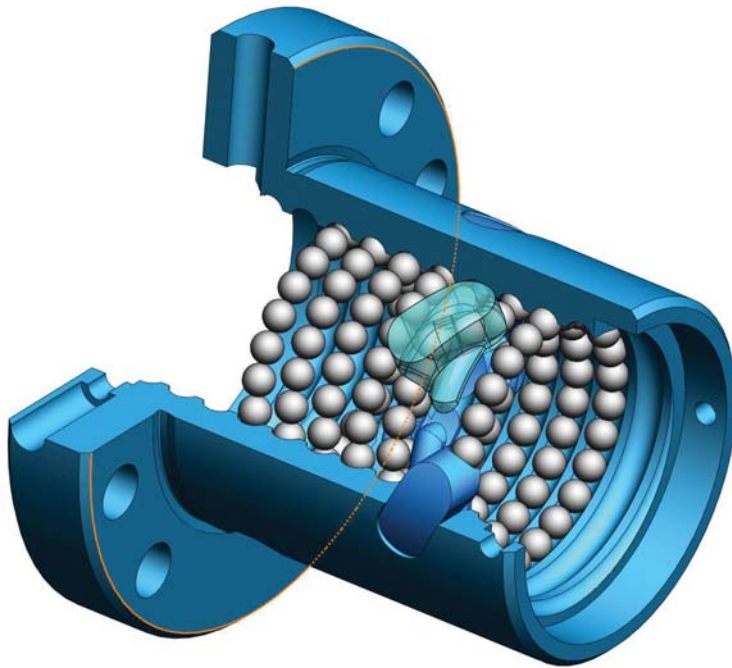


D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
340	405	372	22	8	M10x1	40	40	375	345	390
340	405	372	22	8	M10x1	40	40	375	345	470
350	415	382	22	8	M10x1	40	40	385	355	395
350	415	382	22	8	M10x1	40	40	385	355	475
360	425	392	22	8	M10x1	40	40	395	365	400
360	425	392	22	8	M10x1	40	40	395	365	480
370	435	402	22	8	M10x1	40	40	405	375	410
370	435	402	22	8	M10x1	40	40	405	375	490
340	405	372	22	8	M10x1	40	40	375	345	390
340	405	372	22	8	M10x1	40	40	375	345	510
350	415	382	22	8	M10x1	40	40	385	355	395
350	415	382	22	8	M10x1	40	40	385	355	515
360	425	392	22	8	M10x1	40	40	395	365	400
360	425	392	22	8	M10x1	40	40	395	365	520
370	435	402	22	8	M10x1	40	40	405	375	410
370	435	402	22	8	M10x1	40	40	405	375	530
360	425	392	22	8	M10x1	40	40	395	365	390
360	425	392	22	8	M10x1	40	40	395	365	470
370	435	402	22	8	M10x1	40	40	405	375	395
370	435	402	22	8	M10x1	40	40	405	375	475
380	445	412	22	8	M10x1	40	40	415	385	400
380	445	412	22	8	M10x1	40	40	415	385	480
390	455	422	22	8	M10x1	40	40	425	395	410
390	455	422	22	8	M10x1	40	40	425	395	490
360	425	392	22	8	M10x1	40	40	395	365	390
360	425	392	22	8	M10x1	40	40	395	365	510
370	435	402	22	8	M10x1	40	40	405	375	395
370	435	402	22	8	M10x1	40	40	405	375	515
380	445	412	22	8	M10x1	40	40	415	385	400
380	445	412	22	8	M10x1	40	40	415	385	520
390	455	422	22	8	M10x1	40	40	425	395	410
390	455	422	22	8	M10x1	40	40	425	395	530



FLANGED SINGLE NUT PRELOADED

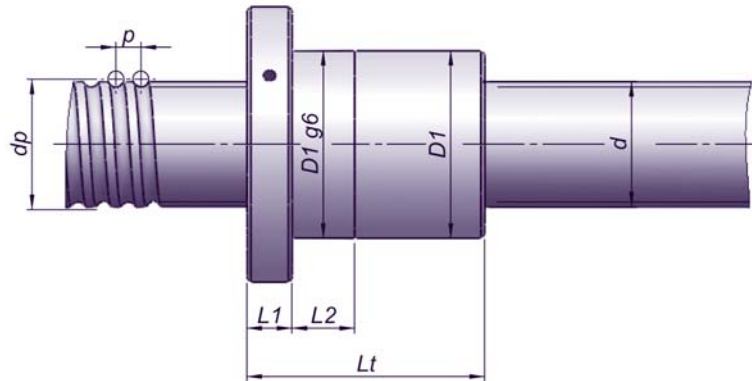
R A D I A L D E F L E C T O R S



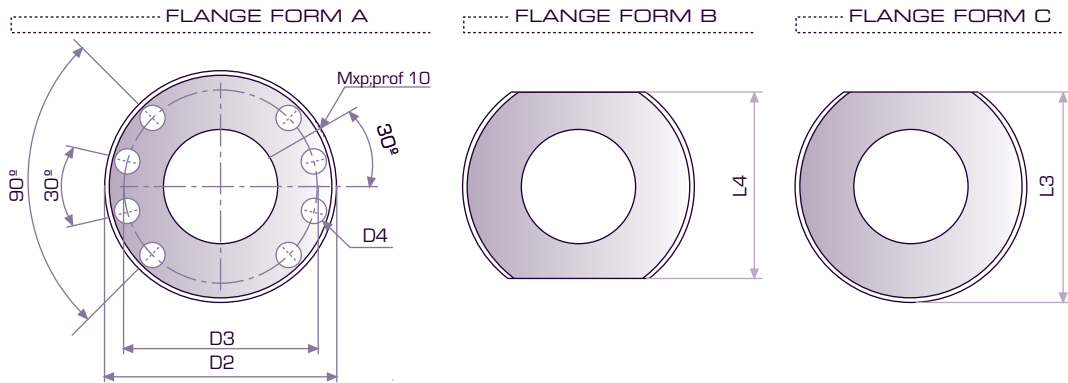
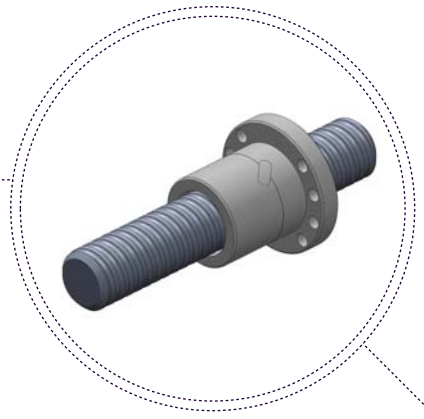
SNF radial

SINGLE NUT FLANGED

RADIAL DEFLECTORS



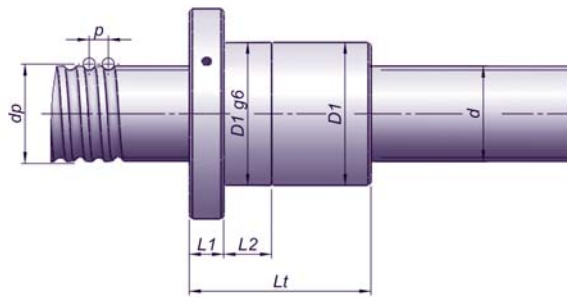
CODE	d	p	Ø ball	nc	C _{0a} (N)	C _a (N)		
SNF 020x05-04-2 -R	20	5	3,969	2	13.704	9.363		
SNF 020x05-04-4 -R				4	27.409	16.995		
SNF 020x05-04-5 -R				5	34.261	20.590		
SNF 020x06-04-2 -R		6		2	13.688	9.363		
SNF 020x06-04-4 -R				4	27.375	16.995		
SNF 020x06-04-5 -R				5	34.219	20.590		
SNF 025x05-04-2 -R	25	5	3,969	2	18.195	10.839		
SNF 025x05-04-4 -R				4	36.391	19.673		
SNF 025x05-04-5 -R				5	45.488	23.835		
SNF 025x06-04-2 -R		6		2	18.181	10.839		
SNF 025x06-04-4 -R				4	36.361	19.673		
SNF 025x06-04-5 -R				5	45.452	23.835		
SNF 025x08-05-2 -R		8		4,762	2	21.503	13.877	
SNF 025x08-05-4 -R					4	43.007	25.187	
SNF 025x08-05-5 -R					5	53.758	30.515	
SNF 025x10-05-3 -R					10	3	32.173	19.667
SNF 025x10-05-5 -R						5	53.621	30.515
SNF 025x10-05-6 -R						6	64.346	35.696
SNF 032x05-04-2 -R	32	5	3,969	2	24.941	12.637		
SNF 032x05-04-4 -R				4	49.883	22.937		
SNF 032x05-04-5 -R				5	62.354	27.789		
SNF 032x06-04-2 -R		6		2	24.929	12.637		
SNF 032x06-04-4 -R				4	49.858	22.937		
SNF 032x06-04-5 -R				5	62.322	27.789		
SNF 032x08-06-2 -R		8		4,762	2	43.764	26.214	
SNF 032x08-06-4 -R					4	87.528	47.579	
SNF 032x08-06-5 -R					5	109.409	57.645	
SNF 032x10-06-3 -R					10	3	65.544	37.151
SNF 032x10-06-5 -R						5	109.239	57.645
SNF 032x10-06-6 -R						6	131.087	67.431
SNF 032x12-06-3 -R		12		6,350	3	65.419	37.151	
SNF 032x12-06-5 -R					5	109.032	57.645	
SNF 032x12-06-6 -R					6	130.839	67.431	



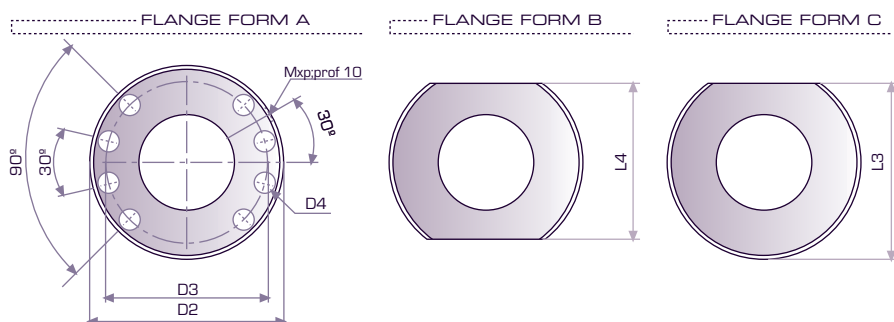
D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
40	59	49,5	6,6	6	M6	10	10	52	45	42,5
40	59	49,5	6,6	6	M6	10	10	52	45	53,5
40	59	49,5	6,6	6	M6	10	10	52	45	58,5
40	59	49,5	6,6	6	M6	10	10	52	45	45
40	59	49,5	6,6	6	M6	10	10	52	45	57,5
40	59	49,5	6,6	6	M6	10	10	52	45	64
50	69	59,5	6,6	6	M6	10	10	62	55	42,5
50	69	59,5	6,6	6	M6	10	10	62	55	53,5
50	69	59,5	6,6	6	M6	10	10	62	55	58,5
50	69	59,5	6,6	6	M6	10	10	62	55	45
50	69	59,5	6,6	6	M6	10	10	62	55	57,5
50	69	59,5	6,6	6	M6	10	10	62	55	64
50	69	59,5	6,6	6	M6	16	16	62	55	58,5
50	69	59,5	6,6	6	M6	16	16	62	55	79,5
50	69	59,5	6,6	6	M6	16	16	62	55	87,5
50	69	59,5	6,6	6	M6	16	16	62	55	78
50	69	59,5	6,6	6	M6	16	16	62	55	98,5
50	69	59,5	6,6	6	M6	16	16	62	55	108,5
60	87	73,5	9	6	M6	10	10	76	65	42,5
60	87	73,5	9	6	M6	10	10	76	65	53,5
60	87	73,5	9	6	M6	10	10	76	65	58,5
60	87	73,5	9	6	M6	10	10	76	65	45
60	87	73,5	9	6	M6	10	10	76	65	57,5
60	87	73,5	9	6	M6	10	10	76	65	64
60	87	73,5	9	6	M6	16	16	76	65	64,5
60	87	73,5	9	6	M6	16	16	76	65	81,5
60	87	73,5	9	6	M6	16	16	76	65	90
60	87	73,5	9	6	M6	16	16	76	65	80
60	87	73,5	9	6	M6	16	16	76	65	100,5
60	87	73,5	9	6	M6	16	16	76	65	111
60	87	73,5	9	6	M6	16	16	76	65	90,5
60	87	73,5	9	6	M6	16	16	76	65	115,5
60	87	73,5	9	6	M6	16	16	76	65	127,5

SINGLE NUT FLANGED

RADIAL DEFLECTORS



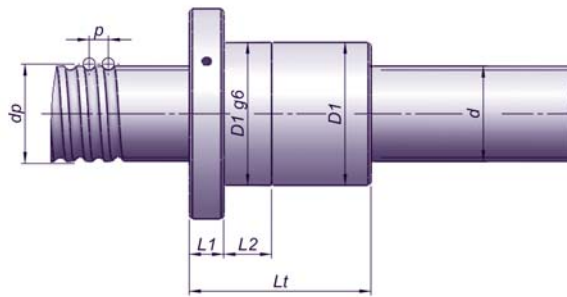
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)
SNF 040x05-04-2 -R	40	5	3,969	2	31.740	14.014
SNF 040x05-04-4 -R				4	63.479	25.437
SNF 040x05-04-5 -R				5	79.349	30.818
SNF 040x06-04-2 -R				2	31.729	14.014
SNF 040x06-04-4 -R		4	63.459	25.437		
SNF 040x06-04-5 -R		5	79.323	30.818		
SNF 040x08-06-3 -R		3	87.156	42.967		
SNF 040x08-06-5 -R		5	145.259	66.670		
SNF 040x08-06-6 -R		6	174.311	77.987		
SNF 040x10-06-3 -R		3	87.066	42.967		
SNF 040x10-06-5 -R		5	145.111	66.670		
SNF 040x10-06-6 -R		6	174.133	77.987		
SNF 040x12-06-3 -R		3	86.958	42.967		
SNF 040x12-06-5 -R		5	144.929	66.670		
SNF 040x12-06-6 -R		6	173.915	77.987		
SNF 040x16-08-3 -R		3	104.919	57.494		
SNF 040x16-08-5 -R		5	174.865	89.210		
SNF 040x16-08-6 -R		6	209.838	104.354		
SNF 040x20-08-3 -R		3	113.214	60.646		
SNF 040x20-08-5 -R		5	188.690	94.100		
SNF 040x20-08-6 -R	6	226.428	110.074			
SNF 050x05-04-2 -R	50	5	3,969	2	40.793	15.586
SNF 050x05-04-4 -R				4	81.586	28.290
SNF 050x05-04-5 -R				5	101.982	34.275
SNF 050x06-04-2 -R				2	40.784	15.586
SNF 050x06-04-4 -R		4	81.568	28.290		
SNF 050x06-04-5 -R		5	101.960	34.275		
SNF 050x08-06-2 -R		2	76.098	34.470		
SNF 050x08-06-4 -R		4	152.196	62.565		
SNF 050x08-06-5 -R		5	190.245	75.801		
SNF 050x10-06-3 -R		3	114.070	48.852		
SNF 050x10-06-5 -R		5	190.117	75.801		
SNF 050x10-06-6 -R		6	228.141	88.669		
SNF 050x12-06-3 -R		3	142.531	67.349		
SNF 050x12-06-5 -R		5	237.551	104.501		
SNF 050x12-06-6 -R		6	285.061	122.241		
SNF 050x16-08-3 -R		3	179.660	90.047		
SNF 050x16-08-5 -R		5	299.434	139.720		
SNF 050x16-08-6 -R		6	359.320	163.438		
SNF 050x20-08-3 -R		3	179.201	90.047		
SNF 050x20-08-5 -R		5	298.669	139.720		
SNF 050x20-08-6 -R	6	358.403	163.438			



D1 ϕ 6	D2 ($\pm 0,1$)	D3 ($\pm 0,1$)	D4	n° of holes	M \times p	L1	L2	L3 (-0,1)	L4 (-0,1)	LT ($\pm 0,1$)
60	87	73,5	9	8	M8x1	10	10	76	65	42,5
60	87	73,5	9	8	M8x1	10	10	76	65	53,5
60	87	73,5	9	8	M8x1	10	10	76	65	58,5
60	87	73,5	9	8	M8x1	10	10	76	65	45
60	87	73,5	9	8	M8x1	10	10	76	65	57,5
60	87	73,5	9	8	M8x1	10	10	76	65	64
70	97	83,5	9	8	M8x1	16	16	86	75	73,5
70	97	83,5	9	8	M8x1	16	16	86	75	90
70	97	83,5	9	8	M8x1	16	16	86	75	98
70	97	83,5	9	8	M8x1	16	16	86	75	80
70	97	83,5	9	8	M8x1	16	16	86	75	100,5
70	97	83,5	9	8	M8x1	16	16	86	75	111
70	97	83,5	9	8	M8x1	16	16	86	75	90,5
70	97	83,5	9	8	M8x1	16	16	86	75	115,5
70	97	83,5	9	8	M8x1	16	16	86	75	127,5
70	97	83,5	9	8	M8x1	25	25	86	75	124,5
70	97	83,5	9	8	M8x1	25	25	86	75	157,5
70	97	83,5	9	8	M8x1	25	25	86	75	174
70	97	83,5	9	8	M8x1	25	25	86	75	136
70	97	83,5	9	8	M8x1	25	25	86	75	177
70	97	83,5	9	8	M8x1	25	25	86	75	197,5
70	103	86,5	11	8	M8x1	10	10	89	75	42,5
70	103	86,5	11	8	M8x1	10	10	89	75	53,5
70	103	86,5	11	8	M8x1	10	10	89	75	58,5
70	103	86,5	11	8	M8x1	10	10	89	75	45
70	103	86,5	11	8	M8x1	10	10	89	75	57,5
70	103	86,5	11	8	M8x1	10	10	89	75	64
80	113	96,5	11	8	M8x1	16	16	99	85	64,5
80	113	96,5	11	8	M8x1	16	16	99	85	81,5
80	113	96,5	11	8	M8x1	16	16	99	85	90
80	113	96,5	11	8	M8x1	16	16	99	85	80
80	113	96,5	11	8	M8x1	16	16	99	85	100,5
80	113	96,5	11	8	M8x1	16	16	99	85	111
80	113	96,5	11	8	M8x1	16	16	99	85	90,5
80	113	96,5	11	8	M8x1	16	16	99	85	115,5
80	113	96,5	11	8	M8x1	16	16	99	85	127,5
90	123	106,5	11	8	M8x1	25	25	109	95	124,5
90	123	106,5	11	8	M8x1	25	25	109	95	157,5
90	123	106,5	11	8	M8x1	25	25	109	95	174
90	130	110	13,5	8	M8x1	25	25	112,5	95	136
90	130	110	13,5	8	M8x1	25	25	112,5	95	177
90	130	110	13,5	8	M8x1	25	25	112,5	95	197,5

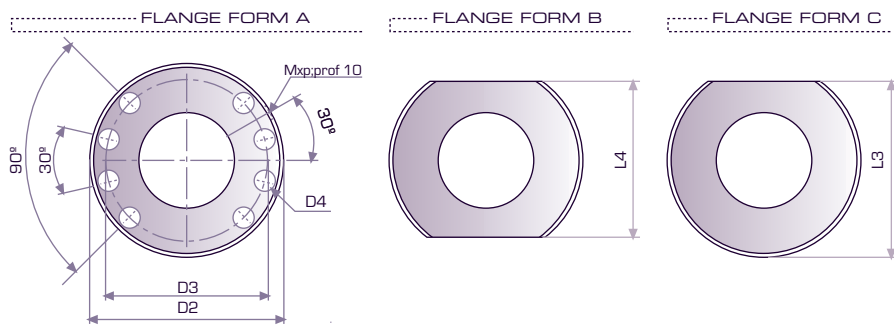
SINGLE NUT FLANGED

RADIAL DEFLECTORS



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)
SNF 063x05-04-2 -R	63	5	3,969	2	52.129	17.187
SNF 063x05-04-4 -R				4	104.258	31.196
SNF 063x05-04-5 -R				5	130.323	37.795
SNF 063x08-06-2 -R		8	6,350	2	101.294	39.314
SNF 063x08-06-4 -R				4	202.589	71.356
SNF 063x08-06-5 -R				5	253.236	86.452
SNF 063x10-06-3 -R		10	6,350	3	151.876	55.717
SNF 063x10-06-5 -R				5	253.127	86.452
SNF 063x10-06-6 -R				6	303.753	101.128
SNF 063x12-06-3 -R		12	6,350	3	151.797	55.717
SNF 063x12-06-5 -R				5	252.994	86.452
SNF 063x12-06-6 -R				6	303.593	101.128
SNF 063x15-10-3 -R		15	9,525	3	238.744	103.744
SNF 063x15-10-5 -R				5	397.907	160.973
SNF 063x15-10-6 -R				6	477.488	188.300
SNF 063x16-10-3 -R		16	9,525	3	238.659	103.744
SNF 063x16-10-5 -R				5	397.765	160.973
SNF 063x16-10-6 -R				6	477.318	188.300
SNF 063x20-10-3 -R		20	12,700	3	238.264	103.744
SNF 063x20-10-5 -R				5	397.106	160.973
SNF 063x20-10-6 -R				6	476.527	188.300
SNF 063x20-13-3 -R		20	12,700	3	337.760	161.907
SNF 063x20-13-5 -R				5	562.934	251.220
SNF 063x20-13-6 -R				6	675.521	293.867
SNF 080x10-06-3 -R	80	10	6,350	3	195.340	61.719
SNF 080x10-06-5 -R				5	325.567	95.766
SNF 080x10-06-6 -R				6	390.680	112.023
SNF 080x12-06-3 -R		12	6,350	3	195.276	61.719
SNF 080x12-06-5 -R				5	325.460	95.766
SNF 080x12-06-6 -R				6	390.552	112.023
SNF 080x15-06-3 -R		15	9,525	3	195.157	61.719
SNF 080x15-06-5 -R				5	325.262	95.766
SNF 080x15-06-6 -R				6	390.315	112.023
SNF 080x16-10-3 -R		16	9,525	3	326.971	120.838
SNF 080x16-10-5 -R				5	544.952	187.496
SNF 080x16-10-6 -R				6	653.943	219.325
SNF 080x20-10-3 -R		20	12,700	3	326.628	120.838
SNF 080x20-10-5 -R				5	544.380	187.496
SNF 080x20-10-6 -R				6	653.256	219.325
SNF 080x20-13-3 -R		20	12,700	3	458.069	189.256
SNF 080x20-13-5 -R				5	763.449	293.656
SNF 080x20-13-6 -R				6	916.139	343.506
SNF 080x25-10-3 -R		25	9,525	3	326.093	120.838
SNF 080x25-10-5 -R				5	543.489	187.496
SNF 080x25-10-6 -R				6	652.186	219.325
SNF 080x25-13-3 -R		25	12,700	3	457.337	189.256
SNF 080x25-13-5 -R				5	762.228	293.656
SNF 080x25-13-6 -R				6	914.674	343.506
SNF 080x25-16-3 -R	25	15,875	3	638.473	278.612	
SNF 080x25-16-5 -R			5	1.064.122	432.304	
SNF 080x25-16-6 -R			6	1.276.947	505.691	

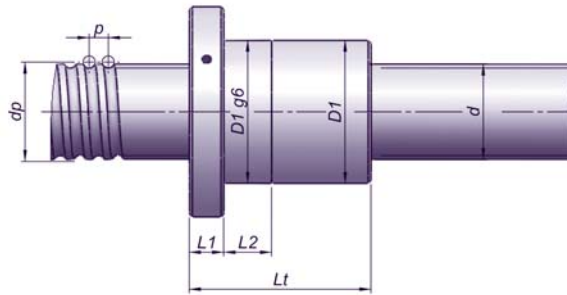
Ca: Dynamic Load Coa: Static Load Nc: Circuit numbers



D1g6	D2 (±0,1)	D3 (±0,1)	D4	n° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
90	123	106,5	11	8	M8x1	10	10	109	95	42,5
90	123	106,5	11	8	M8x1	10	10	109	95	53,5
90	123	106,5	11	8	M8x1	10	10	109	95	58,5
90	123	106,5	11	8	M8x1	16	16	109	95	64,5
90	123	106,5	11	8	M8x1	16	16	109	95	81,5
90	123	106,5	11	8	M8x1	16	16	109	95	90
90	123	106,5	11	8	M8x1	16	16	109	95	80
90	123	106,5	11	8	M8x1	16	16	109	95	100,5
90	123	106,5	11	8	M8x1	16	16	109	95	111
90	123	106,5	11	8	M8x1	16	16	109	95	90,5
90	123	106,5	11	8	M8x1	16	16	109	95	115,5
90	123	106,5	11	8	M8x1	16	16	109	95	127,5
100	133	116,5	11	8	M8x1	16	16	119	105	113,5
100	133	116,5	11	8	M8x1	16	16	119	105	144,5
100	133	116,5	11	8	M8x1	16	16	119	105	160
100	133	116,5	11	8	M8x1	25	25	119	105	128
100	133	116,5	11	8	M8x1	25	25	119	105	161
100	133	116,5	11	8	M8x1	25	25	119	105	177
100	140	120	13,5	8	M8x1	25	25	122,5	105	139
100	140	120	13,5	8	M8x1	25	25	122,5	105	190,5
100	140	120	13,5	8	M8x1	25	25	122,5	105	211
110	150	130	13,5	8	M8x1	25	25	132,5	115	154,5
110	150	130	13,5	8	M8x1	25	25	132,5	115	195,5
110	150	130	13,5	8	M8x1	25	25	132,5	115	216
110	150	130	13,5	8	M8x1	16	16	132,5	115	80
110	150	130	13,5	8	M8x1	16	16	132,5	115	100,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	111
110	150	130	13,5	8	M8x1	16	16	132,5	115	90,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	115,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	127,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	99
110	150	130	13,5	8	M8x1	16	16	132,5	115	130
110	150	130	13,5	8	M8x1	16	16	132,5	115	145,5
120	160	140	13,5	8	M8x1	25	25	142,5	125	128
120	160	140	13,5	8	M8x1	25	25	142,5	125	161
120	160	140	13,5	8	M8x1	25	25	142,5	125	177
120	160	140	13,5	8	M8x1	25	25	142,5	125	139
120	160	140	13,5	8	M8x1	25	25	142,5	125	190,5
120	160	140	13,5	8	M8x1	25	25	142,5	125	211
130	170	150	13,5	8	M8x1	25	25	152,5	135	154,5
130	170	150	13,5	8	M8x1	25	25	152,5	135	195,5
130	170	150	13,5	8	M8x1	25	25	152,5	135	216
120	160	140	13,5	8	M8x1	30	30	142,5	125	168,5
120	160	140	13,5	8	M8x1	30	30	142,5	125	220
120	160	140	13,5	8	M8x1	30	30	142,5	125	245,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	173,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	237,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	263
130	170	150	13,5	8	M8x1	30	30	152,5	135	189
130	170	150	13,5	8	M8x1	30	30	152,5	135	240,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	266

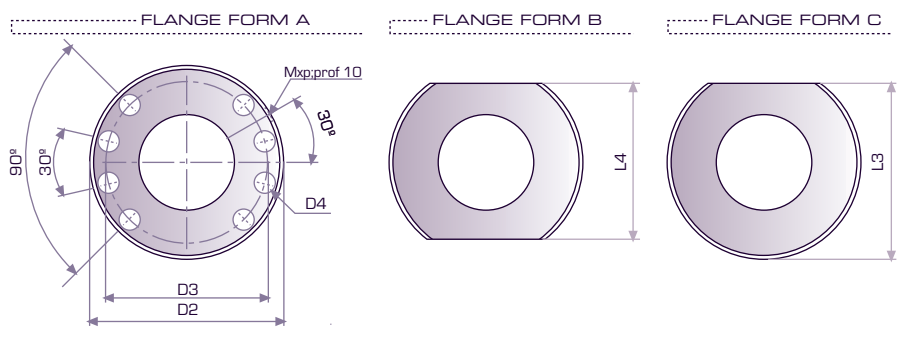
SINGLE NUT FLANGED

RADIAL DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)		
SNF 100x10-06-3 -R	100	10	6,350	3	249.603	68.199		
SNF 100x10-06-5 -R				5	416.005	105.820		
SNF 100x10-06-6 -R				6	499.206	123.784		
SNF 100x12-06-3 -R				12	3	249.550	68.199	
SNF 100x12-06-5 -R					5	415.917	105.820	
SNF 100x12-06-6 -R					6	499.100	123.784	
SNF 100x16-10-3 -R		16	9,525	3	430.400	136.869		
SNF 100x16-10-5 -R				5	717.333	212.372		
SNF 100x16-10-6 -R				6	860.799	248.423		
SNF 100x20-10-3 -R			20	3	430.105	136.869		
SNF 100x20-10-5 -R				5	716.842	212.372		
SNF 100x20-10-6 -R				6	860.211	248.423		
SNF 100x20-13-3 -R		20	12,700	3	608.684	217.152		
SNF 100x20-13-5 -R				5	1.014.473	336.941		
SNF 100x20-13-6 -R				6	1.217.367	394.139		
SNF 100x25-10-3 -R			25	9,525	3	429.647	136.869	
SNF 100x25-10-5 -R					5	716.078	212.372	
SNF 100x25-10-6 -R					6	859.293	248.423	
SNF 100x25-13-3 -R		12,700		3	608.047	217.152		
SNF 100x25-13-5 -R				5	1.013.411	336.941		
SNF 100x25-13-6 -R				6	1.216.093	394.139		
SNF 100x25-16-3 -R		25	15,875	3	848.179	322.088		
SNF 100x25-16-5 -R				5	1.413.631	499.763		
SNF 100x25-16-6 -R				6	1.696.357	584.601		
SNF 120x10-06-3 -R			120	10	6,350	3	303.893	73.740
SNF 120x10-06-5 -R						5	506.488	114.418
SNF 120x10-06-6 -R						6	607.786	133.842
SNF 120x12-06-3 -R		12				3	303.848	73.740
SNF 120x12-06-5 -R						5	506.413	114.418
SNF 120x12-06-6 -R						6	607.695	133.842
SNF 120x16-10-3 -R	16	9,525		3	519.593	147.555		
SNF 120x16-10-5 -R				5	865.988	228.952		
SNF 120x16-10-6 -R				6	1.039.185	267.818		
SNF 120x20-10-3 -R		20		3	519.343	147.555		
SNF 120x20-10-5 -R				5	865.572	228.952		
SNF 120x20-10-6 -R				6	1.038.686	267.818		
SNF 120x20-13-3 -R	20	12,700		3	759.739	240.273		
SNF 120x20-13-5 -R				5	1.266.232	372.817		
SNF 120x20-13-6 -R				6	1.519.478	436.105		
SNF 120x25-10-3 -R		25		9,5250	3	518.954	147.555	
SNF 120x25-10-5 -R					5	864.923	228.952	
SNF 120x25-10-6 -R					6	1.037.908	267.818	
SNF 120x25-13-3 -R	12,7000			3	759.179	240.273		
SNF 120x25-13-5 -R				5	1.265.298	372.817		
SNF 120x25-13-6 -R				6	1.518.358	436.105		
SNF 120x25-16-3 -R	25	15,8750		3	1.058.606	357.988		
SNF 120x25-16-5 -R				5	1.764.343	555.467		
SNF 120x25-16-6 -R				6	2.117.211	649.762		

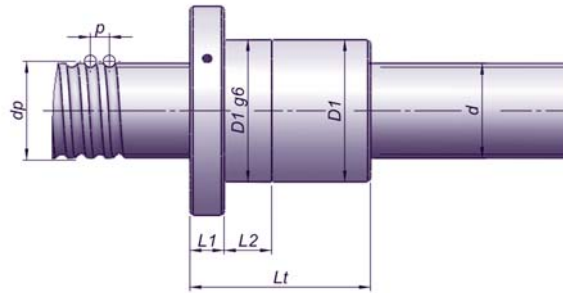
Ca: Dynamic Load Coa: Static Load nc: Circuit numbers



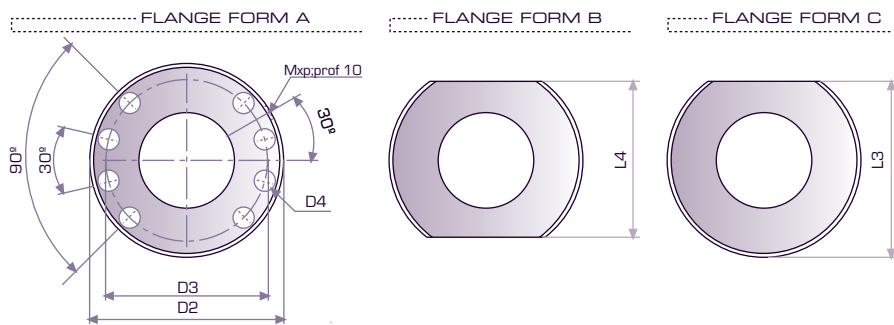
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
130	182	156	17,5	8	M8x1	16	16	158,5	135	80
130	182	156	17,5	8	M8x1	16	16	158,5	135	100,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	111
130	182	156	17,5	8	M8x1	16	16	158,5	135	90,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	115,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	127,5
140	192	166	17,5	8	M8x1	25	25	168,5	145	128
140	192	166	17,5	8	M8x1	25	25	168,5	145	161
140	192	166	17,5	8	M8x1	25	25	168,5	145	177
140	192	166	17,5	8	M8x1	25	25	168,5	145	139
140	192	166	17,5	8	M8x1	25	25	168,5	145	190,5
140	192	166	17,5	8	M8x1	25	25	168,5	145	211
150	202	176	17,5	8	M8x1	25	25	178,5	155	154,5
150	202	176	17,5	8	M8x1	25	25	178,5	155	195,5
150	202	176	17,5	8	M8x1	25	25	178,5	155	216
140	192	166	17,5	8	M8x1	30	30	168,5	145	168,5
140	192	166	17,5	8	M8x1	30	30	168,5	145	220
140	192	166	17,5	8	M8x1	30	30	168,5	145	245,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	173,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	237,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	263
150	202	176	17,5	8	M8x1	30	30	178,5	155	189
150	202	176	17,5	8	M8x1	30	30	178,5	155	240,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	266
150	202	176	17,5	8	M8x1	16	16	178,5	155	80
150	202	176	17,5	8	M8x1	16	16	178,5	155	100,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	111
150	202	176	17,5	8	M8x1	16	16	178,5	155	90,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	115,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	127,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	128
160	212	186	17,5	8	M8x1	25	25	188,5	165	161
160	212	186	17,5	8	M8x1	25	25	188,5	165	177
160	212	186	17,5	8	M8x1	25	25	188,5	165	139
160	212	186	17,5	8	M8x1	25	25	188,5	165	190,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	211
170	222	196	17,5	8	M8x1	25	25	198,5	175	154,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	195,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	216
160	212	186	17,5	8	M8x1	30	30	188,5	165	168,5
160	212	186	17,5	8	M8x1	30	30	188,5	165	220
160	212	186	17,5	8	M8x1	30	30	188,5	165	245,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	173,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	237,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	263
170	222	196	17,5	8	M8x1	30	30	198,5	175	189
170	222	196	17,5	8	M8x1	30	30	198,5	175	240,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	266

SINGLE NUT FLANGED

RADIAL DEFLECTORS



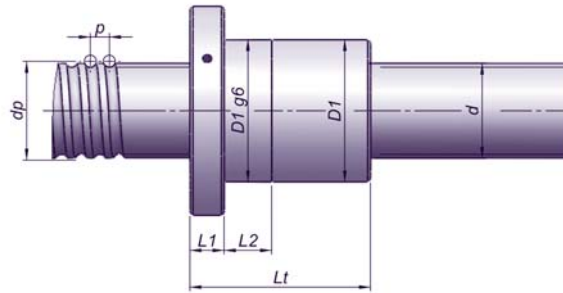
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)	
SNF 125x10-06-3 -R	125	10	6,35	3	314.800	74.595	
SNF 125x10-06-5 -R				5	524.667	115.745	
SNF 125x10-06-6 -R				6	629.600	135.393	
SNF 125x12-06-3 -R				12	3	314.757	74.595
SNF 125x12-06-5 -R					5	524.595	115.745
SNF 125x12-06-6 -R					6	629.514	135.393
SNF 125x16-10-3 -R		16	3		549.114	151.341	
SNF 125x16-10-5 -R			5		915.190	234.826	
SNF 125x16-10-6 -R			6		1.098.228	274.690	
SNF 125x20-10-3 -R			20	3	548.870	151.341	
SNF 125x20-10-5 -R				5	914.784	234.826	
SNF 125x20-10-6 -R				6	1.097.741	274.690	
SNF 125x20-13-3 -R		25		3	790.230	244.004	
SNF 125x20-13-5 -R				5	1.317.049	378.606	
SNF 125x20-13-6 -R				6	1.580.459	442.877	
SNF 125x25-10-3 -R			25	3	548.490	151.341	
SNF 125x25-10-5 -R				5	914.151	234.826	
SNF 125x25-10-6 -R				6	1.096.981	274.690	
SNF 125x25-13-3 -R		25		3	789.691	244.004	
SNF 125x25-13-5 -R				5	1.316.152	378.606	
SNF 125x25-13-6 -R				6	1.579.382	442.877	
SNF 125x25-16-3 -R			140	3	1.111.283	366.093	
SNF 125x25-16-5 -R				5	1.852.138	568.043	
SNF 125x25-16-6 -R				6	2.222.566	664.473	
SNF 125x25-20-3 -R		140		3	1.419.038	496.335	
SNF 125x25-20-5 -R				5	2.365.064	770.132	
SNF 125x25-20-6 -R				6	2.838.077	900.867	
SNF 140x20-13-4 -R			140	20	3	1.214.723	333.213
SNF 140x20-13-6 -R				25	4	1.822.085	472.237
SNF 140x25-13-4 -R					4	1.214.058	333.213
SNF 140x25-13-6 -R	6	1.821.087			472.237		
SNF 140x25-16-4 -R	160	4			1.692.579	497.885	
SNF 140x25-16-6 -R		6			2.538.869	705.615	
SNF 140x25-20-4 -R		160	4		2.221.126	689.101	
SNF 140x25-20-6 -R			6	3.331.689	976.611		
SNF 160x20-13-4 -R			160	20	4	1.416.664	355.750
SNF 160x20-13-6 -R				25	6	2.124.996	504.177
SNF 160x25-13-4 -R	4				1.416.065	355.750	
SNF 160x25-13-6 -R	6				1.895.051	754.790	
SNF 160x25-16-4 -R	180	4			1.974.012	532.583	
SNF 160x25-16-6 -R		6			2.961.018	754.790	
SNF 160x25-20-4 -R		180	4		2.554.759	732.053	
SNF 160x25-20-6 -R			6	3.832.139	1.037.483		
SNF 180x20-13-4 -R			180	20	4	1.618.738	376.055
SNF 180x20-13-6 -R				25	6	2.428.107	532.955
SNF 180x25-13-4 -R	4				1.618.195	376.055	
SNF 180x25-13-6 -R	6				2.427.292	532.955	
SNF 180x25-16-4 -R	180	4			2.255.660	563.739	
SNF 180x25-16-6 -R		6			3.383.489	798.944	
SNF 180x25-20-4 -R		180	4		2.888.375	770.670	
SNF 180x25-20-6 -R			6	4.332.562	1.092.212		



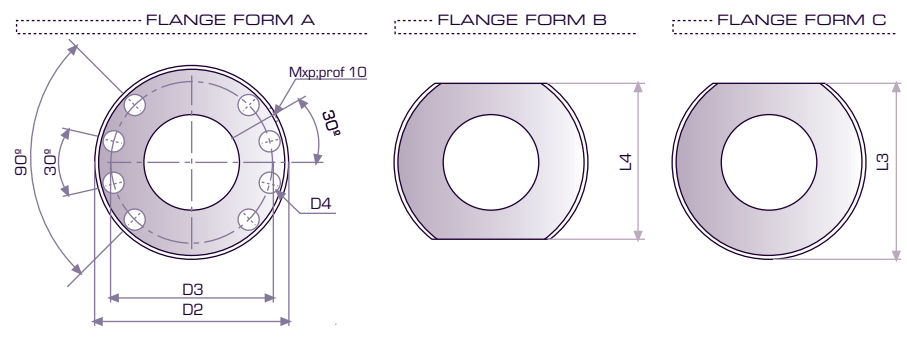
D196	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
160	212	186	17,5	8	M8x1	16	16	188,5	165	80
160	212	186	17,5	8	M8x1	16	16	188,5	165	100,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	111
160	212	186	17,5	8	M8x1	16	16	188,5	165	90,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	115,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	127,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	128
160	212	186	17,5	8	M8x1	25	25	188,5	165	161
160	212	186	17,5	8	M8x1	25	25	188,5	165	177
160	212	186	17,5	8	M8x1	25	25	188,5	165	139
160	212	186	17,5	8	M8x1	25	25	188,5	165	190,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	211
170	222	196	17,5	8	M8x1	25	25	198,5	175	154,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	195,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	216
160	212	186	17,5	8	M8x1	30	30	188,5	165	168,5
160	212	186	17,5	8	M8x1	30	30	188,5	165	220
160	212	186	17,5	8	M8x1	30	30	188,5	165	245,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	173,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	237,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	263
180	232	206	17,5	8	M8x1	30	30	208,5	185	189
180	232	206	17,5	8	M8x1	30	30	208,5	185	240,5
180	232	206	17,5	8	M8x1	30	30	208,5	185	266
190	242	216	17,5	8	M8x1	30	30	218,5	195	191
190	242	216	17,5	8	M8x1	30	30	218,5	195	243
190	242	216	17,5	8	M8x1	30	30	218,5	195	268,5
190	245	217,5	18,5	8	M8x1	25	25	220	195	154,5
190	248	219	19,5	8	M8x1	25	25	221,5	195	175
190	242	216	17,5	8	M8x1	30	30	218,5	195	199,5
190	242	216	17,5	8	M8x1	30	30	218,5	195	263
190	242	216	17,5	8	M8x1	30	30	218,5	195	215
190	242	216	17,5	8	M8x1	30	30	218,5	195	266
200	252	226	17,5	8	M8x1	30	30	228,5	205	217
200	252	226	17,5	8	M8x1	30	30	228,5	205	268,5
210	262	236	17,5	8	M10x1	25	25	238,5	215	175
210	262	236	17,5	8	M10x1	25	25	238,5	215	216
210	265	237,5	18,5	8	M10x1	30	30	240	215	199,5
210	268	239	19,5	8	M10x1	30	30	241,5	215	263
210	262	236	17,5	8	M10x1	30	30	238,5	215	215
210	262	236	17,5	8	M10x1	30	30	238,5	215	266
220	272	246	17,5	8	M10x1	30	30	248,5	225	217
220	272	246	17,5	8	M10x1	30	30	248,5	225	268,5
230	282	256	17,5	8	M10x1	25	25	258,5	235	175
230	282	256	17,5	8	M10x1	25	25	258,5	235	216
230	282	256	17,5	8	M10x1	30	30	258,5	235	199,5
230	282	256	17,5	8	M10x1	30	30	258,5	235	263
230	282	256	17,5	8	M10x1	30	30	258,5	235	215
230	282	256	17,5	8	M10x1	30	30	258,5	235	266
240	292	266	17,5	8	M10x1	30	30	268,5	245	217
240	292	266	17,5	8	M10x1	30	30	268,5	245	268,5

SINGLE NUT FLANGED

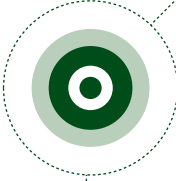
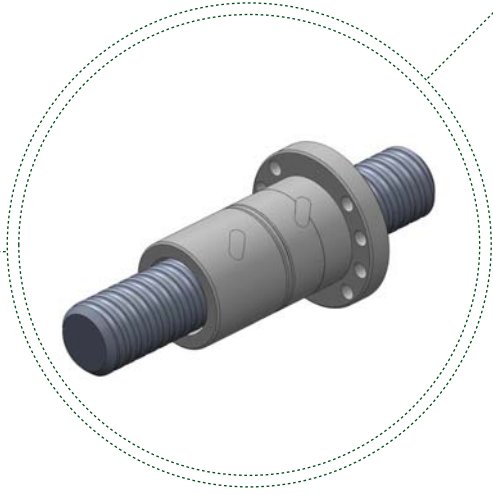
RADIAL DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)				
SNF 200x20-13-4 -R	200	20	12,7	4	1.820.905	394.613				
SNF 200x20-13-6 -R				6	2.731.358	559.254				
SNF 200x25-13-4 -R				25	15,875	4	1.820.408	394.613		
SNF 200x25-13-6 -R						6	2.730.612	559.254		
SNF 200x25-16-4 -R						19,05	19,05	4	2.537.455	592.131
SNF 200x25-16-6 -R								6	3.806.183	839.182
SNF 200x25-20-4 -R		220	12,7					4	3.329.375	823.729
SNF 200x25-20-6 -R								6	4.994.062	1.167.409
SNF 220x20-13-4 -R				20	12,7			4	2.023.139	411.759
SNF 220x20-13-6 -R								6	3.034.709	583.554
SNF 220x25-13-4 -R						25	15,875	4	2.022.681	411.759
SNF 220x25-13-6 -R								6	3.034.021	583.554
SNF 220x25-16-4 -R	19,05	19,05	4					2.819.358	618.303	
SNF 220x25-16-6 -R			6					4.229.037	876.274	
SNF 220x25-20-4 -R			240	12,7	4			3.663.310	855.320	
SNF 220x25-20-6 -R					6			5.494.965	1.212.181	
SNF 240x20-13-4 -R					20	12,7	4	2.225.423	427.739	
SNF 240x20-13-6 -R							6	3.338.135	606.202	
SNF 240x25-13-4 -R	25	15,875					4	2.224.998	427.739	
SNF 240x25-13-6 -R							6	3.337.497	606.202	
SNF 240x25-16-4 -R			19,05	19,05			4	3.101.340	642.650	
SNF 240x25-16-6 -R							6	4.652.009	910.778	
SNF 240x25-20-4 -R					260	12,7	4	3.997.178	884.812	
SNF 240x25-20-6 -R							6	5.995.767	1.253.976	
SNF 260x20-13-4 -R	20	12,7					4	2.427.745	442.737	
SNF 260x20-13-6 -R							6	3.641.618	627.457	
SNF 260x25-13-4 -R			25	15,875			4	2.427.349	442.737	
SNF 260x25-13-6 -R							6	3.641.023	627.457	
SNF 260x25-16-4 -R					19,05	19,05	4	3.383.381	665.464	
SNF 260x25-16-6 -R							6	5.075.072	943.111	
SNF 260x25-20-4 -R	280	12,7					4	4.330.994	912.540	
SNF 260x25-20-6 -R							6	6.496.490	1.293.274	
SNF 280x20-13-4 -R			20	12,7			4	2.630.097	456.895	
SNF 280x20-13-6 -R							6	3.945.146	647.522	
SNF 280x25-13-4 -R					25	15,875	4	2.629.726	456.895	
SNF 280x25-13-6 -R							6	3.944.589	647.522	
SNF 280x25-16-4 -R	19,05	19,05					4	3.665.470	686.972	
SNF 280x25-16-6 -R							6	5.498.206	973.593	
SNF 280x25-20-4 -R			300	12,7			4	4.773.251	953.263	
SNF 280x25-20-6 -R							6	7.159.877	1.350.988	
SNF 300x20-13-4 -R					20	12,7	4	2.832.473	470.323	
SNF 300x20-13-6 -R							6	4.248.709	666.553	
SNF 300x25-13-4 -R	25	15,875					4	2.832.124	470.323	
SNF 300x25-13-6 -R							6	4.248.186	666.553	
SNF 300x25-16-4 -R			19,05	19,05			4	3.947.597	707.350	
SNF 300x25-16-6 -R							6	5.921.395	1.002.474	
SNF 300x25-20-4 -R					6	7.660.760	4	5.107.173	977.603	
SNF 300x25-20-6 -R							6	7.660.760	1.385.482	

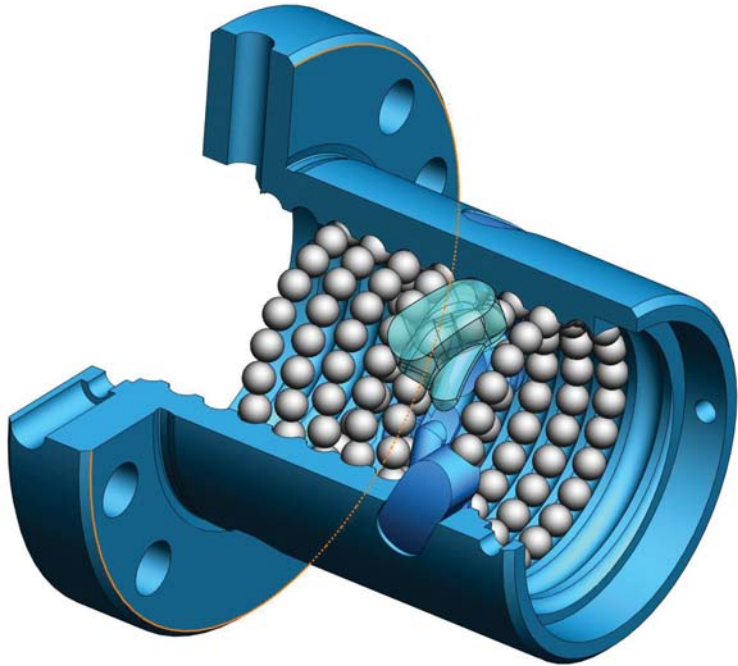


D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
250	316	283	22	8	M10x1	25	25	285,5	255	175
250	316	283	22	8	M10x1	25	25	285,5	255	216
250	316	283	22	8	M10x1	30	30	285,5	255	199,5
250	316	283	22	8	M10x1	30	30	285,5	255	263
250	316	283	22	8	M10x1	30	30	285,5	255	215
250	316	283	22	8	M10x1	30	30	285,5	255	266
260	326	293	22	8	M10x1	30	30	295,5	265	217
260	326	293	22	8	M10x1	30	30	295,5	265	268,5
270	336	303	22	8	M10x1	25	25	305,5	275	175
270	336	303	22	8	M10x1	25	25	305,5	275	216
270	336	303	22	8	M10x1	30	30	305,5	275	199,5
270	336	303	22	8	M10x1	30	30	305,5	275	263
270	336	303	22	8	M10x1	30	30	305,5	275	215
270	336	303	22	8	M10x1	30	30	305,5	275	266
280	346	313	22	8	M10x1	30	30	315,5	285	217
280	346	313	22	8	M10x1	30	30	315,5	285	268,5
290	356	323	22	8	M10x1	25	25	325,5	295	175
290	356	323	22	8	M10x1	25	25	325,5	295	216
290	356	323	22	8	M10x1	30	30	325,5	295	199,5
290	356	323	22	8	M10x1	30	30	325,5	295	263
290	356	323	22	8	M10x1	30	30	325,5	295	215
290	356	323	22	8	M10x1	30	30	325,5	295	266
300	366	333	22	8	M10x1	30	30	335,5	305	217
300	366	333	22	8	M10x1	30	30	335,5	305	268,5
310	376	343	22	8	M10x1	25	25	345,5	315	175
310	376	343	22	8	M10x1	25	25	345,5	315	216
310	376	343	22	8	M10x1	30	30	345,5	315	199,5
310	376	343	22	8	M10x1	30	30	345,5	315	263
310	376	343	22	8	M10x1	30	30	345,5	315	215
310	376	343	22	8	M10x1	30	30	345,5	315	266
320	386	353	22	8	M10x1	30	30	355,5	325	217
320	386	353	22	8	M10x1	30	30	355,5	325	268,5
330	396	363	22	8	M10x1	25	25	365,5	335	175
330	396	363	22	8	M10x1	25	25	365,5	335	216
330	396	363	22	8	M10x1	30	30	365,5	335	199,5
330	396	363	22	8	M10x1	30	30	365,5	335	263
330	396	363	22	8	M10x1	30	30	365,5	335	215
330	396	363	22	8	M10x1	30	30	365,5	335	266
340	406	373	22	8	M10x1	30	30	375,5	345	217
340	406	373	22	8	M10x1	30	30	375,5	345	268,5
350	416	383	22	8	M10x1	25	25	385,5	355	175
350	416	383	22	8	M10x1	25	25	385,5	355	216
350	416	383	22	8	M10x1	30	30	385,5	355	199,5
350	416	383	22	8	M10x1	30	30	385,5	355	263
350	416	383	22	8	M10x1	30	30	385,5	355	215
350	416	383	22	8	M10x1	30	30	385,5	355	266
360	426	393	22	8	M10x1	30	30	395,5	365	217
360	426	393	22	8	M10x1	30	30	395,5	365	268,5



FLANGED DOUBLE NUT PRELOADED

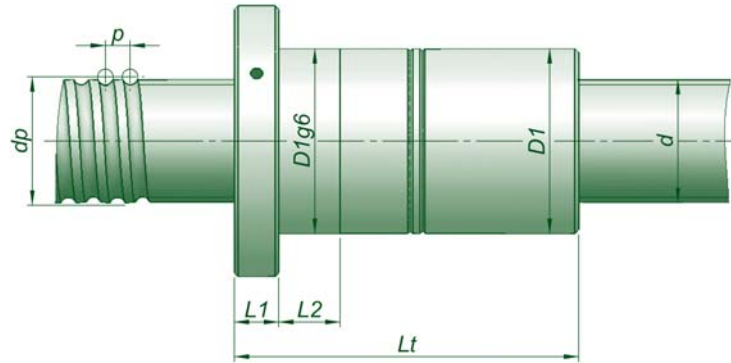
R A D I A L D E F L E C T O R S



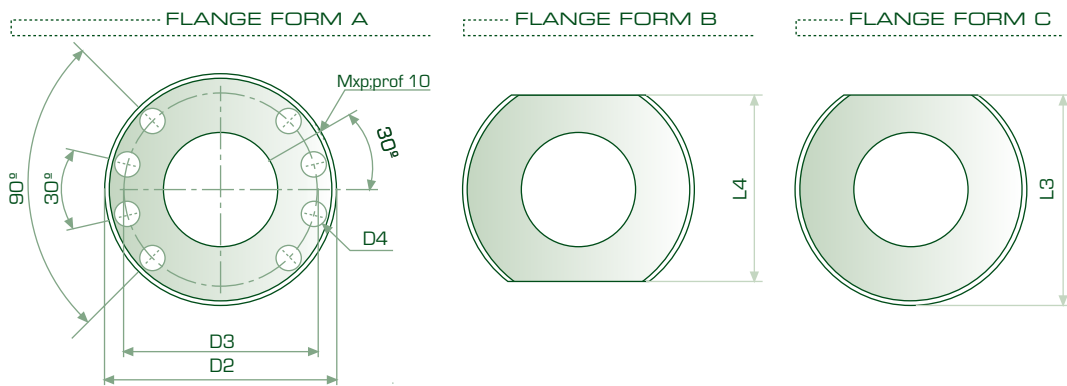
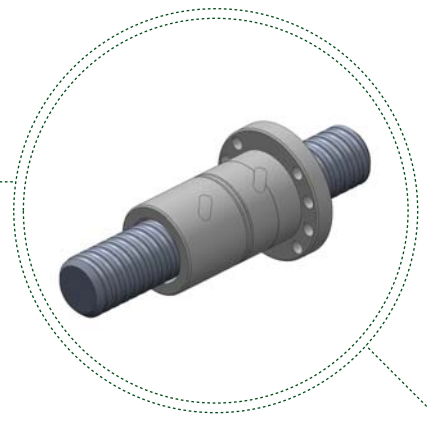
DNF radial

DOUBLE NUT FLANGED

RADIAL DEFLECTORS



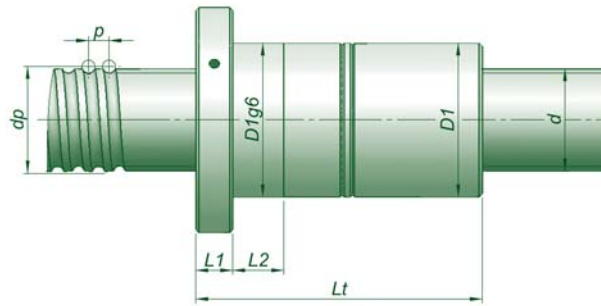
CODE	d	p	Ø ball	Nc	C _{0a} (N)	C _a (N)	
DNF 020x05-04-2 -R	20	5	3,969	2	13.704	9.363	
DNF 020x05-04-4 -R				4	27.409	16.995	
DNF 020x05-04-5 -R				5	34.261	20.590	
DNF 020x06-04-2 -R		6		2	13.688	9.363	
DNF 020x06-04-4 -R				4	27.375	16.995	
DNF 020x06-04-5 -R				5	34.219	20.590	
DNF 025x05-04-2 -R	25	5	3,969	2	18.195	10.839	
DNF 025x05-04-4 -R				4	36.391	19.673	
DNF 025x05-04-5 -R				5	45.488	23.835	
DNF 025x06-04-2 -R		6		2	18.181	10.839	
DNF 025x06-04-4 -R				4	36.361	19.673	
DNF 025x06-04-5 -R				5	45.452	23.835	
DNF 025x08-05-2 -R		8		4,762	2	21.503	13.877
DNF 025x08-05-4 -R					4	43.007	25.187
DNF 025x08-05-5 -R					5	53.758	30.515
DNF 025x10-05-3 -R				10	3	32.173	19.667
DNF 025x10-05-5 -R					5	53.621	30.515
DNF 025x10-05-6 -R					6	64.346	35.696
DNF 032x05-04-2 -R	32	5	3,969	2	24.941	12.637	
DNF 032x05-04-4 -R				4	49.883	22.937	
DNF 032x05-04-5 -R				5	62.354	27.789	
DNF 032x06-04-2 -R		6		2	24.929	12.637	
DNF 032x06-04-4 -R				4	49.858	22.937	
DNF 032x06-04-5 -R				5	62.322	27.789	
DNF 032x08-06-2 -R		8		6,350	2	43.764	26.214
DNF 032x08-06-4 -R					4	87.528	47.579
DNF 032x08-06-5 -R					5	109.409	57.645
DNF 032x10-06-3 -R				10	3	65.544	37.151
DNF 032x10-06-5 -R					5	109.239	57.645
DNF 032x10-06-6 -R					6	131.087	67.431
DNF 032x12-06-3 -R		12		3	65.419	37.151	
DNF 032x12-06-5 -R				5	109.032	57.645	
DNF 032x12-06-6 -R				6	130.839	67.431	



D1 ϕ 6	D2 ($\pm 0,1$)	D3 ($\pm 0,1$)	D4	N° of holes	M \times p	L1	L2	L3 (-0,1)	L4 (-0,1)	LT ($\pm 0,1$)
40	59	49,5	6,6	6	M6	10	10	52	45	42,5
40	59	49,5	6,6	6	M6	10	10	52	45	53,5
40	59	49,5	6,6	6	M6	10	10	52	45	58,5
40	59	49,5	6,6	6	M6	10	10	52	45	45
40	59	49,5	6,6	6	M6	10	10	52	45	57,5
40	59	49,5	6,6	6	M6	10	10	52	45	64
50	69	59,5	6,6	6	M6	10	10	62	55	42,5
50	69	59,5	6,6	6	M6	10	10	62	55	53,5
50	69	59,5	6,6	6	M6	10	10	62	55	58,5
50	69	59,5	6,6	6	M6	10	10	62	55	45
50	69	59,5	6,6	6	M6	10	10	62	55	57,5
50	69	59,5	6,6	6	M6	10	10	62	55	64
50	69	59,5	6,6	6	M6	16	16	62	55	58,5
50	69	59,5	6,6	6	M6	16	16	62	55	79,5
50	69	59,5	6,6	6	M6	16	16	62	55	87,5
50	69	59,5	6,6	6	M6	16	16	62	55	78
50	69	59,5	6,6	6	M6	16	16	62	55	98,5
50	69	59,5	6,6	6	M6	16	16	62	55	108,5
60	87	73,5	9	6	M6	10	10	76	65	42,5
60	87	73,5	9	6	M6	10	10	76	65	53,5
60	87	73,5	9	6	M6	10	10	76	65	58,5
60	87	73,5	9	6	M6	10	10	76	65	45
60	87	73,5	9	6	M6	10	10	76	65	57,5
60	87	73,5	9	6	M6	10	10	76	65	64
60	87	73,5	9	6	M6	16	16	76	65	64,5
60	87	73,5	9	6	M6	16	16	76	65	81,5
60	87	73,5	9	6	M6	16	16	76	65	90
60	87	73,5	9	6	M6	16	16	76	65	80
60	87	73,5	9	6	M6	16	16	76	65	100,5
60	87	73,5	9	6	M6	16	16	76	65	111
60	87	73,5	9	6	M6	16	16	76	65	90,5
60	87	73,5	9	6	M6	16	16	76	65	115,5
60	87	73,5	9	6	M6	16	16	76	65	127,5

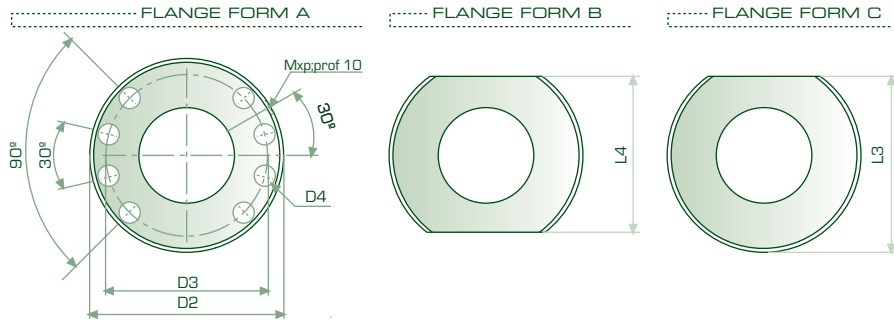
DOUBLE NUT FLANGED

RADIAL DEFLECTORS



CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)
DNF 040x05-04-2 -R	40	5	3,969	2	31.740	14.014
DNF 040x05-04-4 -R				4	63.479	25.437
DNF 040x05-04-5 -R				5	79.349	30.818
DNF 040x06-04-2 -R				2	31.729	14.014
DNF 040x06-04-4 -R		4	63.459	25.437		
DNF 040x06-04-5 -R		5	79.323	30.818		
DNF 040x08-06-3 -R		3	87.156	42.967		
DNF 040x08-06-5 -R		5	145.259	66.670		
DNF 040x08-06-6 -R		6	174.311	77.987		
DNF 040x10-06-3 -R		3	87.066	42.967		
DNF 040x10-06-5 -R		5	145.111	66.670		
DNF 040x10-06-6 -R		6	174.133	77.987		
DNF 040x12-06-3 -R		3	86.958	42.967		
DNF 040x12-06-5 -R		5	144.929	66.670		
DNF 040x12-06-6 -R		6	173.915	77.987		
DNF 040x16-08-3 -R		3	104.919	57.494		
DNF 040x16-08-5 -R		5	174.865	89.210		
DNF 040x16-08-6 -R		6	209.838	104.354		
DNF 040x20-08-3 -R		3	113.214	60.646		
DNF 040x20-08-5 -R		5	188.690	94.100		
DNF 040x20-08-6 -R	6	226.428	110.074			
DNF 050x05-04-2 -R	50	5	3,969	2	40.793	15.586
DNF 050x05-04-4 -R				4	81.586	28.290
DNF 050x05-04-5 -R				5	101.982	34.275
DNF 050x06-04-2 -R				2	40.784	15.586
DNF 050x06-04-4 -R		4	81.568	28.290		
DNF 050x06-04-5 -R		5	101.960	34.275		
DNF 050x08-06-2 -R		2	76.098	34.470		
DNF 050x08-06-4 -R		4	152.196	62.565		
DNF 050x08-06-5 -R		5	190.245	75.801		
DNF 050x10-06-3 -R		3	114.070	48.852		
DNF 050x10-06-5 -R		5	190.117	75.801		
DNF 050x10-06-6 -R		6	228.141	88.669		
DNF 050x12-06-3 -R		3	142.531	67.349		
DNF 050x12-06-5 -R		5	237.551	104.501		
DNF 050x12-06-6 -R		6	285.061	122.241		
DNF 050x16-08-3 -R		3	179.660	90.047		
DNF 050x16-08-5 -R		5	299.434	139.720		
DNF 050x16-08-6 -R		6	359.320	163.438		
DNF 050x20-08-3 -R		3	179.201	90.047		
DNF 050x20-08-5 -R		5	298.669	139.720		
DNF 050x20-08-6 -R	6	358.403	163.438			

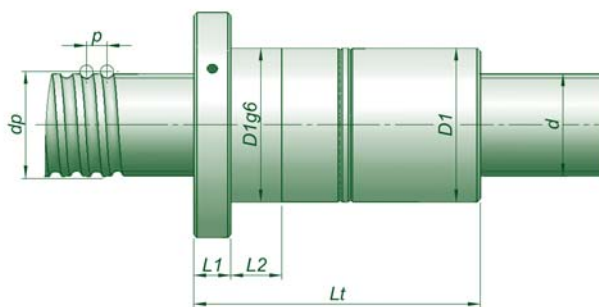
Ca: Dynamic Load Coa: Static Load nc: Circuit numbers



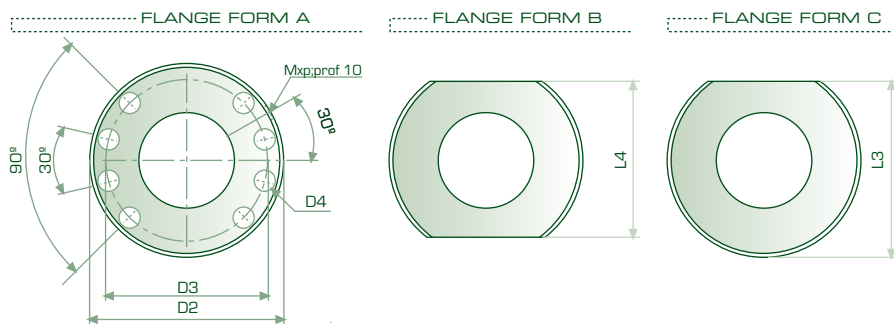
D196	D2 (±0,1)	D3 (±0,1)	D4	n° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
60	87	73,5	9	8	M8x1	10	10	76	65	42,5
60	87	73,5	9	8	M8x1	10	10	76	65	53,5
60	87	73,5	9	8	M8x1	10	10	76	65	58,5
60	87	73,5	9	8	M8x1	10	10	76	65	45
60	87	73,5	9	8	M8x1	10	10	76	65	57,5
60	87	73,5	9	8	M8x1	10	10	76	65	64
70	97	83,5	9	8	M8x1	16	16	86	75	73,5
70	97	83,5	9	8	M8x1	16	16	86	75	90
70	97	83,5	9	8	M8x1	16	16	86	75	98
70	97	83,5	9	8	M8x1	16	16	86	75	80
70	97	83,5	9	8	M8x1	16	16	86	75	100,5
70	97	83,5	9	8	M8x1	16	16	86	75	111
70	97	83,5	9	8	M8x1	16	16	86	75	90,5
70	97	83,5	9	8	M8x1	16	16	86	75	115,5
70	97	83,5	9	8	M8x1	16	16	86	75	127,5
70	97	83,5	9	8	M8x1	25	25	86	75	124,5
70	97	83,5	9	8	M8x1	25	25	86	75	157,5
70	97	83,5	9	8	M8x1	25	25	86	75	174
70	97	83,5	9	8	M8x1	25	25	86	75	136
70	97	83,5	9	8	M8x1	25	25	86	75	177
70	97	83,5	9	8	M8x1	25	25	86	75	197,5
70	103	86,5	11	8	M8x1	10	10	89	75	42,5
70	103	86,5	11	8	M8x1	10	10	89	75	53,5
70	103	86,5	11	8	M8x1	10	10	89	75	58,5
70	103	86,5	11	8	M8x1	10	10	89	75	45
70	103	86,5	11	8	M8x1	10	10	89	75	57,5
70	103	86,5	11	8	M8x1	10	10	89	75	64
80	113	96,5	11	8	M8x1	16	16	99	85	64,5
80	113	96,5	11	8	M8x1	16	16	99	85	81,5
80	113	96,5	11	8	M8x1	16	16	99	85	90
80	113	96,5	11	8	M8x1	16	16	99	85	80
80	113	96,5	11	8	M8x1	16	16	99	85	100,5
80	113	96,5	11	8	M8x1	16	16	99	85	111
80	113	96,5	11	8	M8x1	16	16	99	85	90,5
80	113	96,5	11	8	M8x1	16	16	99	85	115,5
80	113	96,5	11	8	M8x1	16	16	99	85	127,5
90	123	106,5	11	8	M8x1	25	25	109	95	124,5
90	123	106,5	11	8	M8x1	25	25	109	95	157,5
90	123	106,5	11	8	M8x1	25	25	109	95	174
90	130	110	13,5	8	M8x1	25	25	112,5	95	136
90	130	110	13,5	8	M8x1	25	25	112,5	95	177
90	130	110	13,5	8	M8x1	25	25	112,5	95	197,5

DOUBLE NUT FLANGED

RADIAL DEFLECTORS



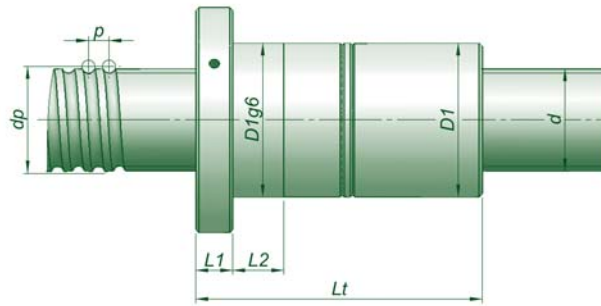
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)		
DNF 063x05-04-2 -R	63	5	3,969	2	52.129	17.187		
DNF 063x05-04-4 -R				4	104.258	31.196		
DNF 063x05-04-5 -R				5	130.323	37.795		
DNF 063x08-06-2 -R				8	6,350	2	101.294	39.314
DNF 063x08-06-4 -R						4	202.589	71.356
DNF 063x08-06-5 -R						5	253.236	86.452
DNF 063x10-06-3 -R		10	9,525	3		151.876	55.717	
DNF 063x10-06-5 -R				5		253.127	86.452	
DNF 063x10-06-6 -R				6		303.753	101.128	
DNF 063x12-06-3 -R		12		12,700	3	151.797	55.717	
DNF 063x12-06-5 -R					5	252.994	86.452	
DNF 063x12-06-6 -R					6	303.593	101.128	
DNF 063x15-10-3 -R		15	15,875		3	238.744	103.744	
DNF 063x15-10-5 -R					5	397.907	160.973	
DNF 063x15-10-6 -R					6	477.488	188.300	
DNF 063x16-10-3 -R		16		18,838	3	238.659	103.744	
DNF 063x16-10-5 -R					5	397.765	160.973	
DNF 063x16-10-6 -R					6	477.318	188.300	
DNF 063x20-10-3 -R		20	21,932		3	238.264	103.744	
DNF 063x20-10-5 -R					5	397.106	160.973	
DNF 063x20-10-6 -R					6	476.527	188.300	
DNF 063x20-13-3 -R		20		25,220	3	337.760	161.907	
DNF 063x20-13-5 -R					5	562.934	251.220	
DNF 063x20-13-6 -R					6	675.521	293.867	
DNF 080x10-06-3 -R	80	10	6,350		3	195.340	61.719	
DNF 080x10-06-5 -R					5	325.567	95.766	
DNF 080x10-06-6 -R					6	390.680	112.023	
DNF 080x12-06-3 -R				12	9,525	3	195.276	61.719
DNF 080x12-06-5 -R						5	325.460	95.766
DNF 080x12-06-6 -R						6	390.552	112.023
DNF 080x15-06-3 -R		15	12,700	3		195.157	61.719	
DNF 080x15-06-5 -R				5		325.262	95.766	
DNF 080x15-06-6 -R				6		390.315	112.023	
DNF 080x16-10-3 -R		16		15,875	3	326.971	120.838	
DNF 080x16-10-5 -R					5	544.952	187.496	
DNF 080x16-10-6 -R					6	653.943	219.325	
DNF 080x20-10-3 -R		20	18,838		3	326.628	120.838	
DNF 080x20-10-5 -R					5	544.380	187.496	
DNF 080x20-10-6 -R					6	653.256	219.325	
DNF 080x20-13-3 -R		20		21,932	3	458.069	189.256	
DNF 080x20-13-5 -R					5	763.449	293.656	
DNF 080x20-13-6 -R					6	916.139	343.506	
DNF 080x25-10-3 -R		25	25,220		3	326.093	120.838	
DNF 080x25-10-5 -R					5	543.489	187.496	
DNF 080x25-10-6 -R					6	652.186	219.325	
DNF 080x25-13-3 -R			15,875	28,612	3	457.337	189.256	
DNF 080x25-13-5 -R					5	762.228	293.656	
DNF 080x25-13-6 -R					6	914.674	343.506	
DNF 080x25-16-3 -R	15,875	34,350	3		638.473	278.612		
DNF 080x25-16-5 -R			5		1.064.122	432.304		
DNF 080x25-16-6 -R			6		1.276.947	505.691		



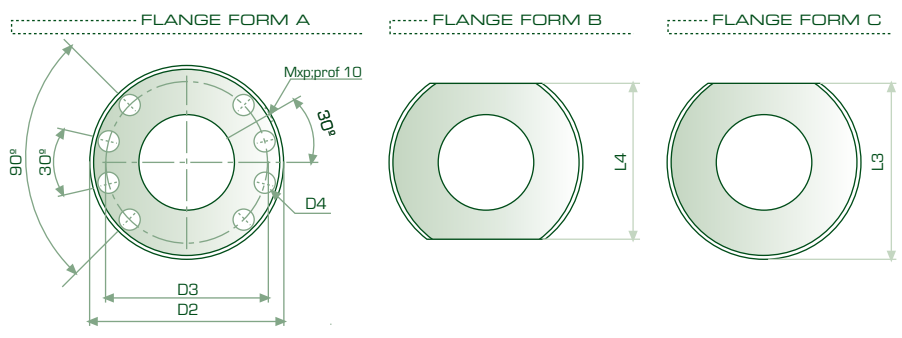
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
90	123	106,5	11	8	M8x1	10	10	109	95	42,5
90	123	106,5	11	8	M8x1	10	10	109	95	53,5
90	123	106,5	11	8	M8x1	10	10	109	95	58,5
90	123	106,5	11	8	M8x1	16	16	109	95	64,5
90	123	106,5	11	8	M8x1	16	16	109	95	81,5
90	123	106,5	11	8	M8x1	16	16	109	95	90
90	123	106,5	11	8	M8x1	16	16	109	95	80
90	123	106,5	11	8	M8x1	16	16	109	95	100,5
90	123	106,5	11	8	M8x1	16	16	109	95	111
90	123	106,5	11	8	M8x1	16	16	109	95	90,5
90	123	106,5	11	8	M8x1	16	16	109	95	115,5
90	123	106,5	11	8	M8x1	16	16	109	95	127,5
100	133	116,5	11	8	M8x1	16	16	119	105	113,5
100	133	116,5	11	8	M8x1	16	16	119	105	144,5
100	133	116,5	11	8	M8x1	16	16	119	105	160
100	133	116,5	11	8	M8x1	25	25	119	105	128
100	133	116,5	11	8	M8x1	25	25	119	105	161
100	133	116,5	11	8	M8x1	25	25	119	105	177
100	140	120	13,5	8	M8x1	25	25	122,5	105	139
100	140	120	13,5	8	M8x1	25	25	122,5	105	190,5
100	140	120	13,5	8	M8x1	25	25	122,5	105	211
110	150	130	13,5	8	M8x1	25	25	132,5	115	154,5
110	150	130	13,5	8	M8x1	25	25	132,5	115	195,5
110	150	130	13,5	8	M8x1	25	25	132,5	115	216
110	150	130	13,5	8	M8x1	16	16	132,5	115	80
110	150	130	13,5	8	M8x1	16	16	132,5	115	100,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	111
110	150	130	13,5	8	M8x1	16	16	132,5	115	90,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	115,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	127,5
110	150	130	13,5	8	M8x1	16	16	132,5	115	99
110	150	130	13,5	8	M8x1	16	16	132,5	115	130
110	150	130	13,5	8	M8x1	16	16	132,5	115	145,5
120	160	140	13,5	8	M8x1	25	25	142,5	125	128
120	160	140	13,5	8	M8x1	25	25	142,5	125	161
120	160	140	13,5	8	M8x1	25	25	142,5	125	177
120	160	140	13,5	8	M8x1	25	25	142,5	125	139
120	160	140	13,5	8	M8x1	25	25	142,5	125	190,5
120	160	140	13,5	8	M8x1	25	25	142,5	125	211
130	170	150	13,5	8	M8x1	25	25	152,5	135	154,5
130	170	150	13,5	8	M8x1	25	25	152,5	135	195,5
130	170	150	13,5	8	M8x1	25	25	152,5	135	216
120	160	140	13,5	8	M8x1	30	30	142,5	125	168,5
120	160	140	13,5	8	M8x1	30	30	142,5	125	220
120	160	140	13,5	8	M8x1	30	30	142,5	125	245,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	173,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	237,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	263
130	170	150	13,5	8	M8x1	30	30	152,5	135	189
130	170	150	13,5	8	M8x1	30	30	152,5	135	240,5
130	170	150	13,5	8	M8x1	30	30	152,5	135	266

DOUBLE NUT FLANGED

RADIAL DEFLECTORS



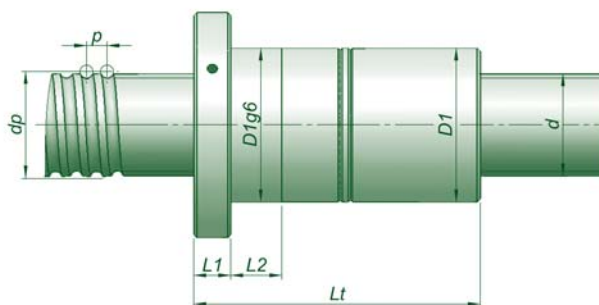
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)	
DNF 100x10-06-3 -R	100	10	6,350	3	249.603	68.199	
DNF 100x10-06-5 -R				5	416.005	105.820	
DNF 100x10-06-6 -R				6	499.206	123.784	
DNF 100x12-06-3 -R				12	3	249.550	68.199
DNF 100x12-06-5 -R		5			415.917	105.820	
DNF 100x12-06-6 -R		6			499.100	123.784	
DNF 100x16-10-3 -R		16			3	430.400	136.869
DNF 100x16-10-5 -R				5	717.333	212.372	
DNF 100x16-10-6 -R			6	860.799	248.423		
DNF 100x20-10-3 -R			20	3	430.105	136.869	
DNF 100x20-10-5 -R		5		716.842	212.372		
DNF 100x20-10-6 -R		6		860.211	248.423		
DNF 100x20-13-3 -R		25		3	608.684	217.152	
DNF 100x20-13-5 -R			5	1.014.473	336.941		
DNF 100x20-13-6 -R			6	1.217.367	394.139		
DNF 100x25-10-3 -R			25	3	429.647	136.869	
DNF 100x25-10-5 -R		5		716.078	212.372		
DNF 100x25-10-6 -R		6		859.293	248.423		
DNF 100x25-13-3 -R		12,700		3	608.047	217.152	
DNF 100x25-13-5 -R				5	1.013.411	336.941	
DNF 100x25-13-6 -R				6	1.216.093	394.139	
DNF 100x25-16-3 -R				15,875	3	848.179	322.088
DNF 100x25-16-5 -R		5			1.413.631	499.763	
DNF 100x25-16-6 -R		6	1.696.357		584.601		
DNF 120x10-06-3 -R		120	10		6,350	3	303.893
DNF 120x10-06-5 -R				5		506.488	114.418
DNF 120x10-06-6 -R				6		607.786	133.842
DNF 120x12-06-3 -R				12		3	303.848
DNF 120x12-06-5 -R	5		506.413			114.418	
DNF 120x12-06-6 -R	6		607.695			133.842	
DNF 120x16-10-3 -R	16		3			519.593	147.555
DNF 120x16-10-5 -R			5	865.988		228.952	
DNF 120x16-10-6 -R			6	1.039.185	267.818		
DNF 120x20-10-3 -R			20	3	519.343	147.555	
DNF 120x20-10-5 -R	5			865.572	228.952		
DNF 120x20-10-6 -R	6			1.038.686	267.818		
DNF 120x20-13-3 -R	25			3	759.739	240.273	
DNF 120x20-13-5 -R			5	1.266.232	372.817		
DNF 120x20-13-6 -R			6	1.519.478	436.105		
DNF 120x25-10-3 -R			25	3	518.954	147.555	
DNF 120x25-10-5 -R	5			864.923	228.952		
DNF 120x25-10-6 -R	6			1.037.908	267.818		
DNF 120x25-13-3 -R	12,700			3	759.179	240.273	
DNF 120x25-13-5 -R				5	1.265.298	372.817	
DNF 120x25-13-6 -R				6	1.518.358	436.105	
DNF 120x25-16-3 -R				15,875	3	1.058.606	357.988
DNF 120x25-16-5 -R	5				1.764.343	555.467	
DNF 120x25-16-6 -R	6		2.117.211		649.762		



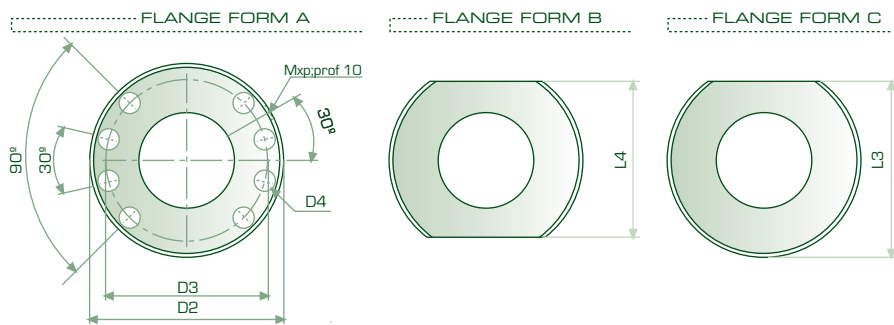
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
130	182	156	17,5	8	M8x1	16	16	158,5	135	80
130	182	156	17,5	8	M8x1	16	16	158,5	135	100,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	111
130	182	156	17,5	8	M8x1	16	16	158,5	135	90,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	115,5
130	182	156	17,5	8	M8x1	16	16	158,5	135	127,5
140	192	166	17,5	8	M8x1	25	25	168,5	145	128
140	192	166	17,5	8	M8x1	25	25	168,5	145	161
140	192	166	17,5	8	M8x1	25	25	168,5	145	177
140	192	166	17,5	8	M8x1	25	25	168,5	145	139
140	192	166	17,5	8	M8x1	25	25	168,5	145	190,5
140	192	166	17,5	8	M8x1	25	25	168,5	145	211
150	202	176	17,5	8	M8x1	25	25	178,5	155	154,5
150	202	176	17,5	8	M8x1	25	25	178,5	155	195,5
150	202	176	17,5	8	M8x1	25	25	178,5	155	216
140	192	166	17,5	8	M8x1	30	30	168,5	145	168,5
140	192	166	17,5	8	M8x1	30	30	168,5	145	220
140	192	166	17,5	8	M8x1	30	30	168,5	145	245,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	173,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	237,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	263
150	202	176	17,5	8	M8x1	30	30	178,5	155	189
150	202	176	17,5	8	M8x1	30	30	178,5	155	240,5
150	202	176	17,5	8	M8x1	30	30	178,5	155	266
150	202	176	17,5	8	M8x1	16	16	178,5	155	80
150	202	176	17,5	8	M8x1	16	16	178,5	155	100,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	111
150	202	176	17,5	8	M8x1	16	16	178,5	155	90,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	115,5
150	202	176	17,5	8	M8x1	16	16	178,5	155	127,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	128
160	212	186	17,5	8	M8x1	25	25	188,5	165	161
160	212	186	17,5	8	M8x1	25	25	188,5	165	177
160	212	186	17,5	8	M8x1	25	25	188,5	165	139
160	212	186	17,5	8	M8x1	25	25	188,5	165	190,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	211
170	222	196	17,5	8	M8x1	25	25	198,5	175	154,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	195,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	216
160	212	186	17,5	8	M8x1	30	30	188,5	165	168,5
160	212	186	17,5	8	M8x1	30	30	188,5	165	220
160	212	186	17,5	8	M8x1	30	30	188,5	165	245,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	173,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	237,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	263
170	222	196	17,5	8	M8x1	30	30	198,5	175	189
170	222	196	17,5	8	M8x1	30	30	198,5	175	240,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	266

DOUBLE NUT FLANGED

RADIAL DEFLECTORS



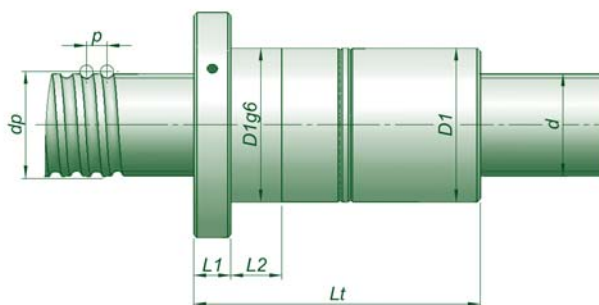
CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)			
DNF 125x10-06-3 -R	125	10	6,35	3	314.800	74.595			
DNF 125x10-06-5 -R				5	524.667	115.745			
DNF 125x10-06-6 -R				6	629.600	135.393			
DNF 125x12-06-3 -R				12	3	314.757	74.595		
DNF 125x12-06-5 -R		5			524.595	115.745			
DNF 125x12-06-6 -R		6		629.514	135.393				
DNF 125x16-10-3 -R		16		9,525	3	549.114	151.341		
DNF 125x16-10-5 -R					5	915.190	234.826		
DNF 125x16-10-6 -R			6		1.098.228	274.690			
DNF 125x20-10-3 -R			20		3	548.870	151.341		
DNF 125x20-10-5 -R		5			914.784	234.826			
DNF 125x20-10-6 -R		6	1.097.741		274.690				
DNF 125x20-13-3 -R		20	12,7		3	790.230	244.004		
DNF 125x20-13-5 -R					5	1.317.049	378.606		
DNF 125x20-13-6 -R				6	1.580.459	442.877			
DNF 125x25-10-3 -R				25	9,525	3	548.490	151.341	
DNF 125x25-10-5 -R			5			914.151	234.826		
DNF 125x25-10-6 -R			6			1.096.981	274.690		
DNF 125x25-13-3 -R			12,7			3	789.691	244.004	
DNF 125x25-13-5 -R				5		1.316.152	378.606		
DNF 125x25-13-6 -R		6	1.579.382	442.877					
DNF 125x25-16-3 -R		25	15,875	3		1.111.283	366.093		
DNF 125x25-16-5 -R				5		1.852.138	568.043		
DNF 125x25-16-6 -R				6	2.222.566	664.473			
DNF 125x25-20-3 -R				19,05	3	1.419.038	496.335		
DNF 125x25-20-5 -R		5			2.365.064	770.132			
DNF 125x25-20-6 -R		6			2.838.077	900.867			
DNF 140x20-13-4 -R		140			20	12,7	3	1.214.723	333.213
DNF 140x20-13-6 -R	4			1.822.085			472.237		
DNF 140x25-13-4 -R	25		15,875	4			1.214.058	333.213	
DNF 140x25-13-6 -R				6			1.821.087	472.237	
DNF 140x25-16-4 -R				4	1.692.579		497.885		
DNF 140x25-16-6 -R				6	2.538.869		705.615		
DNF 140x25-20-4 -R	19,05			19,05	4		2.221.126	689.101	
DNF 140x25-20-6 -R					6		3.331.689	976.611	
DNF 160x20-13-4 -R		160			20	12,7	4	1.416.664	355.750
DNF 160x20-13-6 -R							6	2.124.996	504.177
DNF 160x25-13-4 -R	25		15,875				4	1.416.065	355.750
DNF 160x25-13-6 -R							6	1.895.051	754.790
DNF 160x25-16-4 -R					4		1.974.012	532.583	
DNF 160x25-16-6 -R					6		2.961.018	754.790	
DNF 160x25-20-4 -R	19,05			19,05	4		2.554.759	732.053	
DNF 160x25-20-6 -R					6		3.832.139	1.037.483	
DNF 180x20-13-4 -R		180			20	12,7	4	1.618.738	376.055
DNF 180x20-13-6 -R							6	2.428.107	532.955
DNF 180x25-13-4 -R	25		15,875				4	1.618.195	376.055
DNF 180x25-13-6 -R							6	2.427.292	532.955
DNF 180x25-16-4 -R					4		2.255.660	563.739	
DNF 180x25-16-6 -R					6		3.383.489	798.944	
DNF 180x25-20-4 -R	19,05			19,05	4		2.888.375	770.670	
DNF 180x25-20-6 -R					6		4.332.562	1.092.212	



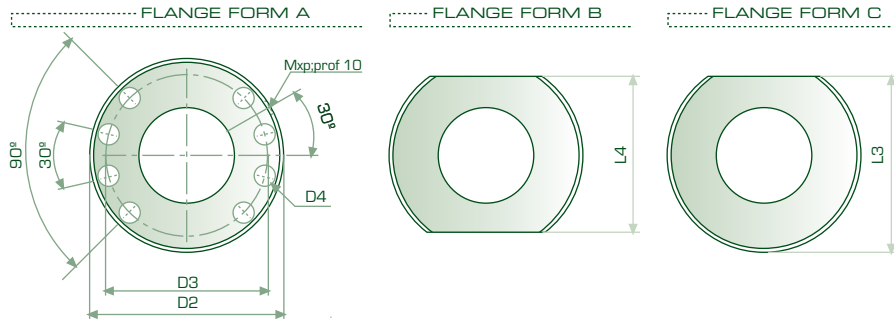
D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
160	212	186	17,5	8	M8x1	16	16	188,5	165	80
160	212	186	17,5	8	M8x1	16	16	188,5	165	100,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	111
160	212	186	17,5	8	M8x1	16	16	188,5	165	90,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	115,5
160	212	186	17,5	8	M8x1	16	16	188,5	165	127,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	128
160	212	186	17,5	8	M8x1	25	25	188,5	165	161
160	212	186	17,5	8	M8x1	25	25	188,5	165	177
160	212	186	17,5	8	M8x1	25	25	188,5	165	139
160	212	186	17,5	8	M8x1	25	25	188,5	165	190,5
160	212	186	17,5	8	M8x1	25	25	188,5	165	211
170	222	196	17,5	8	M8x1	25	25	198,5	175	154,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	195,5
170	222	196	17,5	8	M8x1	25	25	198,5	175	216
160	212	186	17,5	8	M8x1	30	30	188,5	165	168,5
160	212	186	17,5	8	M8x1	30	30	188,5	165	220
160	212	186	17,5	8	M8x1	30	30	188,5	165	245,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	173,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	237,5
170	222	196	17,5	8	M8x1	30	30	198,5	175	263
180	232	206	17,5	8	M8x1	30	30	208,5	185	189
180	232	206	17,5	8	M8x1	30	30	208,5	185	240,5
180	232	206	17,5	8	M8x1	30	30	208,5	185	266
190	242	216	17,5	8	M8x1	30	30	218,5	195	191
190	242	216	17,5	8	M8x1	30	30	218,5	195	243
190	242	216	17,5	8	M8x1	30	30	218,5	195	268,5
190	245	217,5	18,5	8	M8x1	25	25	220	195	154,5
190	248	219	19,5	8	M8x1	25	25	221,5	195	175
190	242	216	17,5	8	M8x1	30	30	218,5	195	199,5
190	242	216	17,5	8	M8x1	30	30	218,5	195	263
190	242	216	17,5	8	M8x1	30	30	218,5	195	215
190	242	216	17,5	8	M8x1	30	30	218,5	195	266
200	252	226	17,5	8	M8x1	30	30	228,5	205	217
200	252	226	17,5	8	M8x1	30	30	228,5	205	268,5
210	262	236	17,5	8	M10x1	25	25	238,5	215	175
210	262	236	17,5	8	M10x1	25	25	238,5	215	216
210	265	237,5	18,5	8	M10x1	30	30	240	215	199,5
210	268	239	19,5	8	M10x1	30	30	241,5	215	263
210	262	236	17,5	8	M10x1	30	30	238,5	215	215
210	262	236	17,5	8	M10x1	30	30	238,5	215	266
220	272	246	17,5	8	M10x1	30	30	248,5	225	217
220	272	246	17,5	8	M10x1	30	30	248,5	225	268,5
230	282	256	17,5	8	M10x1	25	25	258,5	235	175
230	282	256	17,5	8	M10x1	25	25	258,5	235	216
230	282	256	17,5	8	M10x1	30	30	258,5	235	199,5
230	282	256	17,5	8	M10x1	30	30	258,5	235	263
230	282	256	17,5	8	M10x1	30	30	258,5	235	215
230	282	256	17,5	8	M10x1	30	30	258,5	235	266
240	292	266	17,5	8	M10x1	30	30	268,5	245	217
240	292	266	17,5	8	M10x1	30	30	268,5	245	268,5

DOUBLE NUT FLANGED

RADIAL DEFLECTORS

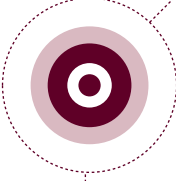


CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)					
DNF 200x20-13-4 -R	200	20	12,7	4	1.820.905	394.613					
DNF 200x20-13-6 -R				6	2.731.358	559.254					
DNF 200x25-13-4 -R				25	15,875	4	1.820.408	394.613			
DNF 200x25-13-6 -R						6	2.730.612	559.254			
DNF 200x25-16-4 -R						19,05	19,05	4	2.537.455	592.131	
DNF 200x25-16-6 -R								6	3.806.183	839.182	
DNF 200x25-20-4 -R		20	20					4	3.329.375	823.729	
DNF 200x25-20-6 -R								6	4.994.062	1.167.409	
DNF 220x20-13-4 -R				220	20			12,7	4	2.023.139	411.759
DNF 220x20-13-6 -R									6	3.034.709	583.554
DNF 220x25-13-4 -R						25	15,875		4	2.022.681	411.759
DNF 220x25-13-6 -R									6	3.034.021	583.554
DNF 220x25-16-4 -R	19,05	19,05	4						2.819.358	618.303	
DNF 220x25-16-6 -R			6						4.229.037	876.274	
DNF 220x25-20-4 -R			20		20			4	3.663.310	855.320	
DNF 220x25-20-6 -R								6	5.494.965	1.212.181	
DNF 240x20-13-4 -R						240	20	12,7	4	2.225.423	427.739
DNF 240x20-13-6 -R									6	3.338.135	606.202
DNF 240x25-13-4 -R	25	15,875							4	2.224.998	427.739
DNF 240x25-13-6 -R									6	3.337.497	606.202
DNF 240x25-16-4 -R			19,05	19,05	4				3.101.340	642.650	
DNF 240x25-16-6 -R					6				4.652.009	910.778	
DNF 240x25-20-4 -R					20		20	4	3.997.178	884.812	
DNF 240x25-20-6 -R								6	5.995.767	1.253.976	
DNF 260x20-13-4 -R	260	20						12,7	4	2.427.745	442.737
DNF 260x20-13-6 -R									6	3.641.618	627.457
DNF 260x25-13-4 -R			25	15,875					4	2.427.349	442.737
DNF 260x25-13-6 -R									6	3.641.023	627.457
DNF 260x25-16-4 -R					19,05	19,05	4		3.383.381	665.464	
DNF 260x25-16-6 -R							6		5.075.072	943.111	
DNF 260x25-20-4 -R		20					20	4	4.330.994	912.540	
DNF 260x25-20-6 -R								6	6.496.490	1.293.274	
DNF 280x20-13-4 -R			280	20				12,7	4	2.630.097	456.895
DNF 280x20-13-6 -R									6	3.945.146	647.522
DNF 280x25-13-4 -R					25	15,875			4	2.629.726	456.895
DNF 280x25-13-6 -R									6	3.944.589	647.522
DNF 280x25-16-4 -R	19,05	19,05					4		3.665.470	686.972	
DNF 280x25-16-6 -R							6		5.498.206	973.593	
DNF 280x25-20-4 -R				20			20	4	4.773.251	953.263	
DNF 280x25-20-6 -R								6	7.159.877	1.350.988	
DNF 300x20-13-4 -R					300	20		12,7	4	2.832.473	470.323
DNF 300x20-13-6 -R									6	4.248.709	666.553
DNF 300x25-13-4 -R	25	15,875							4	2.832.124	470.323
DNF 300x25-13-6 -R									6	4.248.186	666.553
DNF 300x25-16-4 -R			19,05	19,05			4		3.947.597	707.350	
DNF 300x25-16-6 -R							6		5.921.395	1.002.474	
DNF 300x25-20-4 -R						20	20	4	5.107.173	977.603	
DNF 300x25-20-6 -R								6	7.660.760	1.385.482	

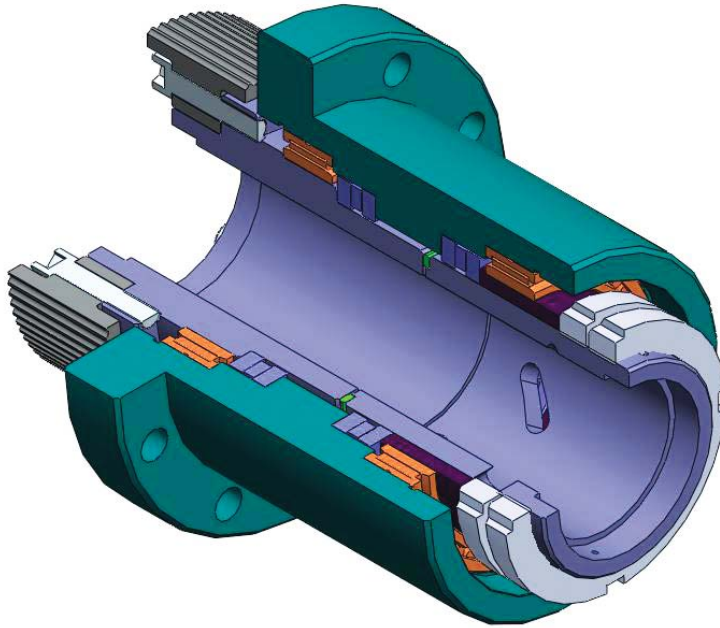


D1g6	D2 (±0,1)	D3 (±0,1)	D4	N° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	LT (±0,1)
250	316	283	22	8	M10x1	25	25	285,5	255	175
250	316	283	22	8	M10x1	25	25	285,5	255	216
250	316	283	22	8	M10x1	30	30	285,5	255	199,5
250	316	283	22	8	M10x1	30	30	285,5	255	263
250	316	283	22	8	M10x1	30	30	285,5	255	215
250	316	283	22	8	M10x1	30	30	285,5	255	266
260	326	293	22	8	M10x1	30	30	295,5	265	217
260	326	293	22	8	M10x1	30	30	295,5	265	268,5
270	336	303	22	8	M10x1	25	25	305,5	275	175
270	336	303	22	8	M10x1	25	25	305,5	275	216
270	336	303	22	8	M10x1	30	30	305,5	275	199,5
270	336	303	22	8	M10x1	30	30	305,5	275	263
270	336	303	22	8	M10x1	30	30	305,5	275	215
270	336	303	22	8	M10x1	30	30	305,5	275	266
280	346	313	22	8	M10x1	30	30	315,5	285	217
280	346	313	22	8	M10x1	30	30	315,5	285	268,5
290	356	323	22	8	M10x1	25	25	325,5	295	175
290	356	323	22	8	M10x1	25	25	325,5	295	216
290	356	323	22	8	M10x1	30	30	325,5	295	199,5
290	356	323	22	8	M10x1	30	30	325,5	295	263
290	356	323	22	8	M10x1	30	30	325,5	295	215
290	356	323	22	8	M10x1	30	30	325,5	295	266
300	366	333	22	8	M10x1	30	30	335,5	305	217
300	366	333	22	8	M10x1	30	30	335,5	305	268,5
310	376	343	22	8	M10x1	25	25	345,5	315	175
310	376	343	22	8	M10x1	25	25	345,5	315	216
310	376	343	22	8	M10x1	30	30	345,5	315	199,5
310	376	343	22	8	M10x1	30	30	345,5	315	263
310	376	343	22	8	M10x1	30	30	345,5	315	215
310	376	343	22	8	M10x1	30	30	345,5	315	266
320	386	353	22	8	M10x1	30	30	355,5	325	217
320	386	353	22	8	M10x1	30	30	355,5	325	268,5
330	396	363	22	8	M10x1	25	25	365,5	335	175
330	396	363	22	8	M10x1	25	25	365,5	335	216
330	396	363	22	8	M10x1	30	30	365,5	335	199,5
330	396	363	22	8	M10x1	30	30	365,5	335	263
330	396	363	22	8	M10x1	30	30	365,5	335	215
330	396	363	22	8	M10x1	30	30	365,5	335	266
340	406	373	22	8	M10x1	30	30	375,5	345	217
340	406	373	22	8	M10x1	30	30	375,5	345	268,5
350	416	383	22	8	M10x1	25	25	385,5	355	175
350	416	383	22	8	M10x1	25	25	385,5	355	216
350	416	383	22	8	M10x1	30	30	385,5	355	199,5
350	416	383	22	8	M10x1	30	30	385,5	355	263
350	416	383	22	8	M10x1	30	30	385,5	355	215
350	416	383	22	8	M10x1	30	30	385,5	355	266
360	426	393	22	8	M10x1	30	30	395,5	365	217
360	426	393	22	8	M10x1	30	30	395,5	365	268,5

BSG-ZUAZO



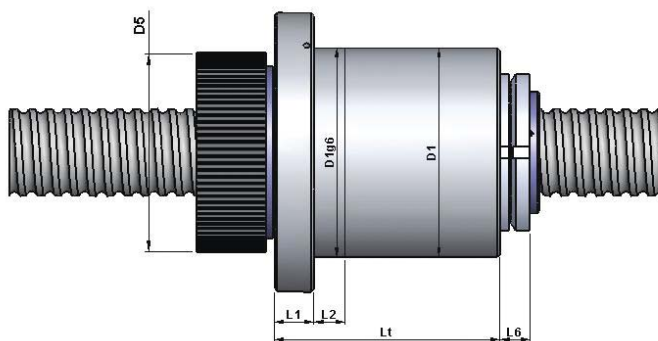
DOUBLE NUT ROTATING



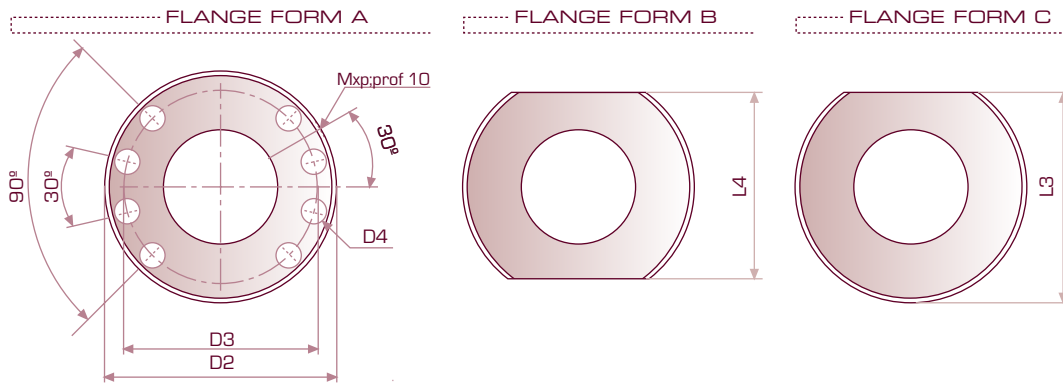
RND



DOUBLE NUT ROTANTING

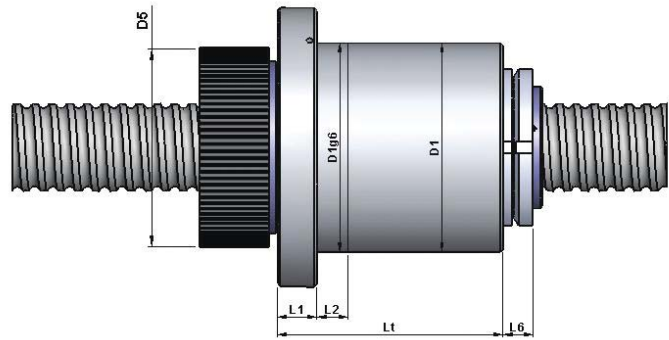


CODE	d	p	Ø ball	nc	Coa (N)	Ca (N)		
RND 50x20-10-3	50	20	9,525	3	179.201	90.047		
RND 50x20-10-4				4	238.935	115.323		
RND 50x20-10-5				5	298.669	139.720		
RND 50x20-10-6				6	358.403	163.438		
RND 63x20-10-3				63	20	3	238.264	103.744
RND 63x20-10-4						4	317.685	132.865
RND 63x20-10-5	5	397.106				160.973		
RND 63x20-10-6	80	20		6	476.527	188.300		
RND 80x20-10-3				3	326.628	120.838		
RND 80x20-10-4				4	435.504	154.757		
RND 80x20-10-5				5	544.380	187.496		
RND 80x20-10-6				6	653.256	219.325		
RND 80x25-10-3				80	25	3	326.093	120.838
RND 80x25-10-4	4	434.791				154.757		
RND 80x25-10-5	5	543.489				187.496		
RND 80x25-10-6	6	652.186			219.325			
RND 80x30-10-2	30	30			2	216.962	85.264	
RND 80x30-10-3					3	325.443	120.838	
RND 80x30-10-5			5	542.405	187.496			
RND 80x40-10-3	40	40	3	323.806	120.838			
RND 80x40-10-4			4	431.742	154.757			

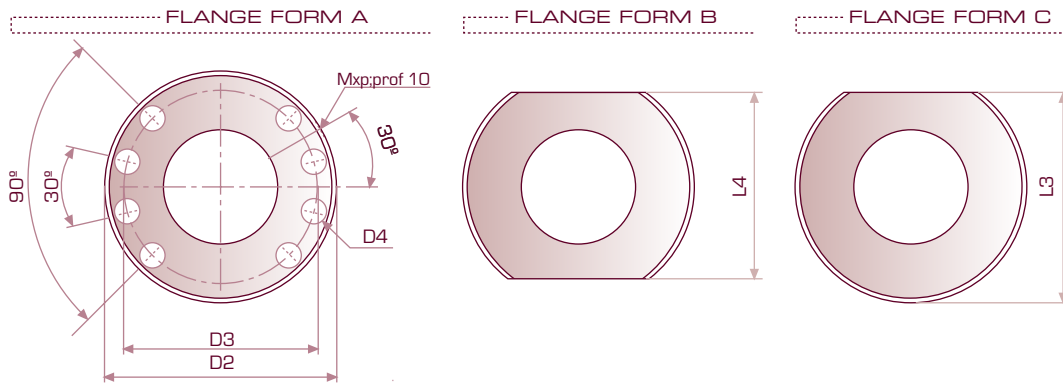


D196	D2 (±0,1)	D3 (±0,1)	D4	D5 (min)	D5 (MAX)	n° of holes	m _{xp}	L1	L2	L3 (-0,1)	L4 (-0,1)	L6 (-0,1)	LT (±0,1)
165	185	204	13,5	146	194	8	M8x1	25	25	177,5	170	35	278
165	186	206	14,5	148	196	8	M8x1	25	25	178	170	35	340
165	187	208	15,5	150	198	8	M8x1	25	25	178,5	170	35	382
165	188	210	16,5	152	200	8	M8x1	25	25	179	170	35	422
180	204	227	17,5	165	217	8	M8x1	25	25	194,5	185	38	278
180	205	229	18,5	167	219	8	M8x1	25	25	195	185	38	340
180	206	231	19,5	169	221	8	M8x1	25	25	195,5	185	38	382
180	207	233	20,5	171	223	8	M8x1	25	25	196	185	38	422
205	233	260	21,5	195	250	8	M8x1	25	25	221,5	210	44	278
205	234	262	22,5	197	252	8	M8x1	25	25	222	210	44	340
205	235	264	23,5	199	254	8	M8x1	25	25	222,5	210	44	382
205	236	266	24,5	201	256	8	M8x1	25	25	223	210	44	422
205	237	268	25,5	203	258	8	M8x1	30	30	223,5	210	44	338
205	238	270	26,5	205	260	8	M8x1	30	30	224	210	44	390
205	239	272	27,5	207	262	8	M8x1	30	30	224,5	210	44	440
205	240	274	28,5	209	264	8	M8x1	30	30	225	210	44	492
205	241	276	29,5	211	266	8	M8x1	35	35	225,5	210	44	330
205	242	278	30,5	213	268	8	M8x1	35	35	226	210	44	396
205	243	280	31,5	215	270	8	M8x1	35	35	226,5	210	44	520
205	244	282	32,5	217	272	8	M8x1	40	40	227	210	44	462
205	245	284	33,5	219	274	8	M8x1	40	40	227,5	210	44	546

DOUBLE NUT ROTANTING

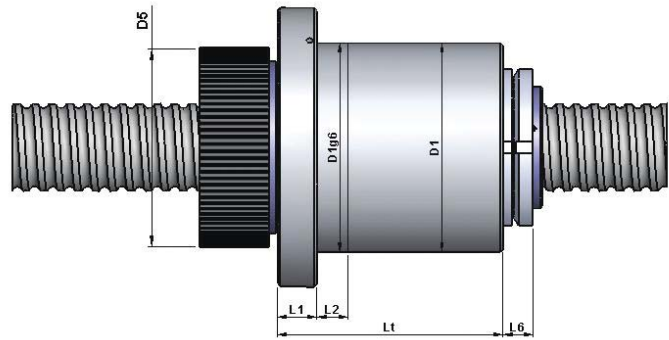


CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)			
RND 100x16-10-3	100	20	9,525	3	430.400	136.869			
RND 100x16-10-4				4	573.866	175.289			
RND 100x16-10-5				5	717.333	212.372			
RND 100x16-10-6				6	860.799	248.423			
RND 100x20-10-3				3	430.105	136.869			
RND 100x20-10-4				4	573.474	175.289			
RND 100x20-10-5				5	716.842	212.372			
RND 100x20-10-6				6	860.211	248.423			
RND 100x20-13-3		3	25	12,700	3	608.684	217.152		
RND 100x20-13-4		4			811.578	278.106			
RND 100x20-13-5		5			1.014.473	336.941			
RND 100x20-13-6		6			1.217.367	394.139			
RND 100x25-10-3		3			30	9,525	3	429.647	136.869
RND 100x25-10-4		4					572.862	175.289	
RND 100x25-10-5		5	716.078	212.372					
RND 100x25-10-6		6	859.293	248.423					
RND 100x25-13-3		3	12,700	3			608.047	217.152	
RND 100x25-13-4		4		810.729			278.106		
RND 100x25-13-5		5		1.013.411	336.941				
RND 100x25-13-6		6		1.216.093	394.139				
RND 100x30-10-2		2	40	9,525	2	286.059	96.576		
RND 100x30-10-3		3			429.088	136.869			
RND 100x30-10-5		5			715.146	212.372			
RND 100x30-13-2		2			12,700	2	404.847	153.223	
RND 100x30-13-3	3	607.271				217.152			
RND 100x30-13-5	5	1.012.118				336.941			
RND 100x40-10-3	3	9,525	3	427.676		136.869			
RND 100x40-10-4	4		570.234	175.289					
RND 100x40-13-3	3		12,700	3	605.310	217.152			
RND 100x40-13-4	4			807.080	278.106				



D196	D2 (±0,1)	D3 (±0,1)	D4	D5 (min)	D5 (MAX)	n° of holes	Mxp	L1	L2	L3 (-0,1)	L4 (-0,1)	L6 (-0,1)	LT (±0,1)
240	281	321	34,5	243	311	8	M8x1	25	25	263	245	50	256
240	282	323	35,5	245	313	8	M8x1	25	25	263,5	245	50	290
240	283	325	36,5	247	315	8	M8x1	25	25	264	245	50	322
240	284	327	37,5	249	317	8	M8x1	25	25	264,5	245	50	354
240	285	329	38,5	251	319	8	M8x1	25	25	265	245	50	278
240	286	331	39,5	253	321	8	M8x1	25	25	265,5	245	50	340
240	287	333	40,5	255	323	8	M8x1	25	25	266	245	50	382
240	288	335	41,5	257	325	8	M8x1	25	25	266,5	245	50	422
255	304	352	42,5	270	342	8	M8x1	25	25	282	260	53	310
255	305	354	43,5	272	344	8	M8x1	25	25	282,5	260	53	350
255	306	356	44,5	274	346	8	M8x1	25	25	283	260	53	392
255	307	358	45,5	276	348	8	M8x1	25	25	283,5	260	53	432
240	293	345	46,5	267	335	8	M8x1	30	30	269	245	50	338
240	294	347	47,5	269	337	8	M8x1	30	30	269,5	245	50	390
240	295	349	48,5	271	339	8	M8x1	30	30	270	245	50	440
240	296	351	49,5	273	341	8	M8x1	30	30	270,5	245	50	492
255	312	368	50,5	286	358	8	M8x1	30	30	286	260	53	348
255	313	370	51,5	288	360	8	M8x1	30	30	286,5	260	53	400
255	314	372	52,5	290	362	8	M8x1	30	30	287	260	53	476
255	315	374	53,5	292	364	8	M8x1	30	30	287,5	260	53	526
240	301	361	54,5	283	351	8	M8x1	35	35	273	245	50	330
240	302	363	55,5	285	353	8	M8x1	35	35	273,5	245	50	396
240	303	365	56,5	287	355	8	M8x1	35	35	274	245	50	520
255	319	382	57,5	300	372	8	M8x1	35	35	289,5	260	53	340
255	320	384	58,5	302	374	8	M8x1	35	35	290	260	53	406
255	321	386	59,5	304	376	8	M8x1	35	35	290,5	260	53	530
240	307	373	60,5	295	363	8	M8x1	40	40	276	245	50	462
240	308	375	61,5	297	365	8	M8x1	40	40	276,5	245	50	546
255	324	392	62,5	310	382	8	M8x1	40	40	292	260	53	512
255	325	394	63,5	312	384	8	M8x1	40	40	292,5	260	53	596

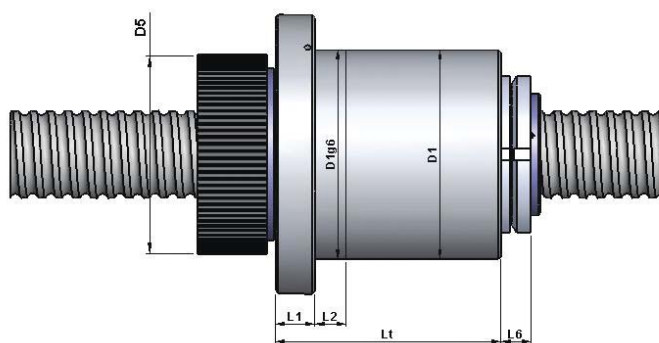
DOUBLE NUT ROTANTING



CODE	d	p	Ø ball	n_c	C_{oa} (N)	C_a (N)	
RND 120x20-10-3	120	20	9,525	3	519.343	147.555	
RND 120x20-10-4				4	692.457	188.974	
RND 120x20-10-5				5	865.572	228.952	
RND 120x20-10-6				6	1.038.686	267.818	
RND 120x20-13-3				3	759.739	240.273	
RND 120x20-13-4				4	1.012.986	307.718	
RND 120x20-13-5		5	1.266.232	372.817			
RND 130x20-13-6		6	1.700.045	460.082			
RND 120x25-10-3		25	25	9,525	3	518.954	147.555
RND 120x25-10-4					4	691.938	188.974
RND 120x25-10-5					5	864.923	228.952
RND 120x25-10-6					6	1.037.908	267.818
RND 120x25-13-3					3	759.179	240.273
RND 120x25-13-4					4	1.012.239	307.718
RND 120x25-13-5		5	1.265.298	372.817			
RND 120x25-13-6		6	1.518.358	436.105			
RND 120x30-10-2		30	30	9,525	2	345.653	104.116
RND 120x30-10-3					3	518.479	147.555
RND 120x30-10-5					5	864.132	228.952
RND 120x30-13-2					2	505.664	169.538
RND 120x30-13-3					3	758.496	240.273
RND 120x30-13-5					5	1.264.160	372.817
RND 120x40-10-3		40	40	9,525	3	517.277	147.555
RND 120x40-10-4					4	689.703	188.974
RND 120x40-13-3	3				756.766	240.273	
RND 120x40-13-4	4				1.009.021	307.718	



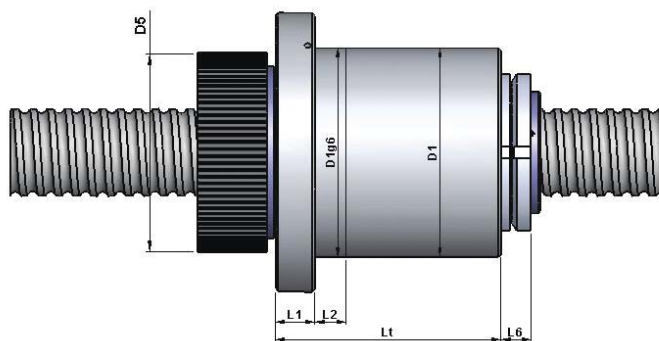
DOUBLE NUT ROTANTING



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)	
RND 125x20-10-3	125	20	9,525	3	548.870	151.341	
RND 125x20-10-4				4	731.827	193.822	
RND 125x20-10-5				5	914.784	234.826	
RND 125x20-10-6				6	1.097.741	274.690	
RND 125x20-13-3				3	790.230	244.004	
RND 125x20-13-4				4	1.053.639	312.496	
RND 125x20-13-5			5	1.317.049	378.606		
RND 125x20-13-6			6	1.580.459	442.877		
RND 125x25-10-3			25	9,525	3	548.490	151.341
RND 125x25-10-4					4	731.321	193.822
RND 125x25-10-5					5	914.151	234.826
RND 125x25-10-6					6	1.096.981	274.690
RND 125x25-13-3		3			789.691	244.004	
RND 125x25-13-4		4			1.052.921	312.496	
RND 125x25-13-5		5		1.316.152	378.606		
RND 125x25-13-6		6		1.579.382	442.877		
RND 125x30-10-2		30		9,525	2	365.351	106.787
RND 125x30-10-3					3	548.027	151.341
RND 125x30-10-5					5	913.379	234.826
RND 125x30-13-2				2	545.505	176.396	
RND 125x30-13-3			3	818.258	249.992		
RND 125x30-13-5			5	1.363.763	387.897		
RND 125x40-10-3		40	9,525	3	546.853	151.341	
RND 125x40-10-4				4	729.137	193.822	



DOUBLE NUT ROTANTING



CODE	d	p	Ø ball	Nc	Coa (N)	Ca (N)	
RND 125x20-10-3	125	20	9,525	3	548.870	151.341	
RND 125x20-10-4				4	731.827	193.822	
RND 125x20-10-5				5	914.784	234.826	
RND 125x20-10-6				6	1.097.741	274.690	
RND 125x20-13-3				3	790.230	244.004	
RND 125x20-13-4				4	1.053.639	312.496	
RND 125x20-13-5		5	1.317.049	378.606			
RND 125x20-13-6		6	1.580.459	442.877			
RND 125x25-10-3		25	25	9,525	3	548.490	151.341
RND 125x25-10-4					4	731.321	193.822
RND 125x25-10-5					5	914.151	234.826
RND 125x25-10-6					6	1.096.981	274.690
RND 125x25-13-3					3	789.691	244.004
RND 125x25-13-4					4	1.052.921	312.496
RND 125x25-13-5		5	1.316.152	378.606			
RND 125x25-13-6		6	1.579.382	442.877			
RND 125x30-10-2		30	30	9,525	2	365.351	106.787
RND 125x30-10-3					3	548.027	151.341
RND 125x30-10-5	5				913.379	234.826	
RND 125x30-13-2	2				545.505	176.396	
RND 125x30-13-3	3				818.258	249.992	
RND 125x30-13-5	5				1.363.763	387.897	
RND 125x40-10-3	40	40	9,525	3	546.853	151.341	
RND 125x40-10-4				4	729.137	193.822	

