

“SN”

Precision screw

Rolled thread ball screw with internal recirculation nut.

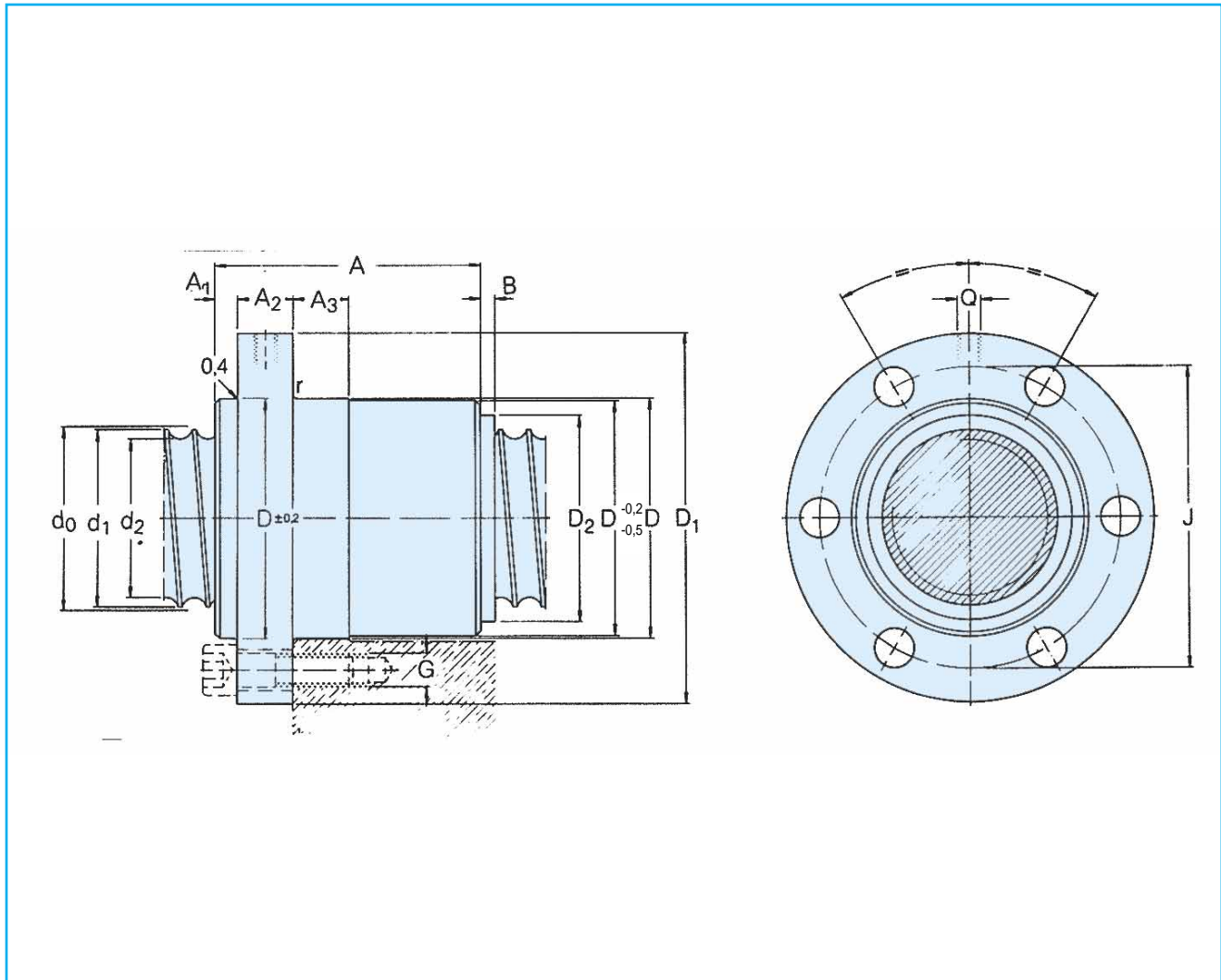
- standard version : composite inserts
- special version : steel inserts which can act as a safety device for severe requirements. Contact us.



- Nominal diameter
16 to 80 mm
- Lead
5 to 20 mm
- Compact nut with integral flange for simple mounting and **axial play**
- Ground flanged nut : precise mounting
- Wipers available
- Screw shaft can be phosphated on request
- Screw shaft accessories : FLBU - PLBU & BUF off the shelves (see pages 26 to 31)

Technical data

Nominal diameter	Right hand lead	Length maximum	Basic load ratings		Number of circuits of balls	Maximum axial play	Reduced maximum axial play (on request)	Mass of nut	Mass of screw shaft	Inertia of one metre of screw shaft	Designation
			dynamic	static							
d ₀	P _h		C _a	C _{0a}							
mm	mm	mm	kN		—	mm		kg	kg/m	kgmm ²	
16	5	2100	6,8	12,4	3	0,08	0,05	0,25	1,3	33	SN 16 x 5 R
20	5	5000	9,1	18,3	3	0,10	0,05	0,31	2,0	85	SN 20 x 5 R
25	5	5000	10,1	22,6	3	0,10	0,05	0,36	3,3	224	SN 25 x 5 R
25	10	5000	18,8	39,0	4	0,12	0,08	0,68	3,5	255	SN 25 x 10 R
32	5	6000	14,7	40,2	4	0,10	0,05	0,44	5,6	641	SN 32 x 5 R
32	10	6000	31,3	64,4	3	0,12	0,08	1,2	5,2	550	SN 32 x 10 R
40	5	6000	19,4	63,0	5	0,10	0,05	0,62	9,0	1639	SN 40 x 5 R
40	10	6000	51,3	126,8	5	0,12	0,08	1,62	8,4	1437	SN 40 x 10 R
50	10	6000	56,4	157,1	5	0,12	0,08	1,95	13,6	3736	SN 50 x 10 R
63	10	6000	63,1	202,1	5	0,12	0,08	2,70	22,0	9913	SN 63 x 10 R
80	20	5500	169,3	510,4	6	0,15	0,08	10,0	32,0	20800	SN 80 x 20 R



Designation	Screw shaft		Nut		D ₁	A ₃	A	A ₂	A ₁	J js12	G	r + 0,2	Lubrication hole	Wiper	
	d ₂	d ₁	D g9	D ₂									Q	B	D ₂ js13
— mm															
SN 16 x 5 R	12,7	15,2	28	48	11	50,5	10	6	38	6 x M5	0,8	M6	0	21	
SN 20 x 5 R	16,7	19,4	33	57	15	52,5	12	6	45	6 x M6	0,8	M6	0	26	
SN 25 x 5 R	21,7	24,6	38	62	15	52,5	12	6	50	6 x M6	0,8	M6	0	31	
SN 25 x 10 R	20,5	24,6	43	67	15	85	12	6	55	6 x M6	0,8	M6	0	34	
SN 32 x 5 R	28,7	31,6	45	70	15	57,5	12	6	58	6 x M6	0,8	M6	0	38	
SN 32 x 10 R	26,0	31,5	54	87	20	79	16	6	70	6 x M8	0,8	M8 x 1	5	42	
SN 40 x 5 R	36,7	39,6	53	80	15	64,5	14	6	68	6 x M6	0,8	M6	0	46	
SN 40 x 10 R	34	39,4	63	95	20	99	16	6	78	6 x M8	1,2	M8 x 1	5	50	
SN 50 x 10 R	44	49,7	72	110	20	99	16	6	90	6 x M10	1,2	M8 x 1	5	60	
SN 63 x 10 R	57	62,8	85	125	20	103	20	6	105	6 x M10	1,2	M8 x 1	5	73	
SN 80 x 20 R	66,9	76,9	115	170	30	218	27	10	142	8 x M16	1,2	M8 x 1	5	95	

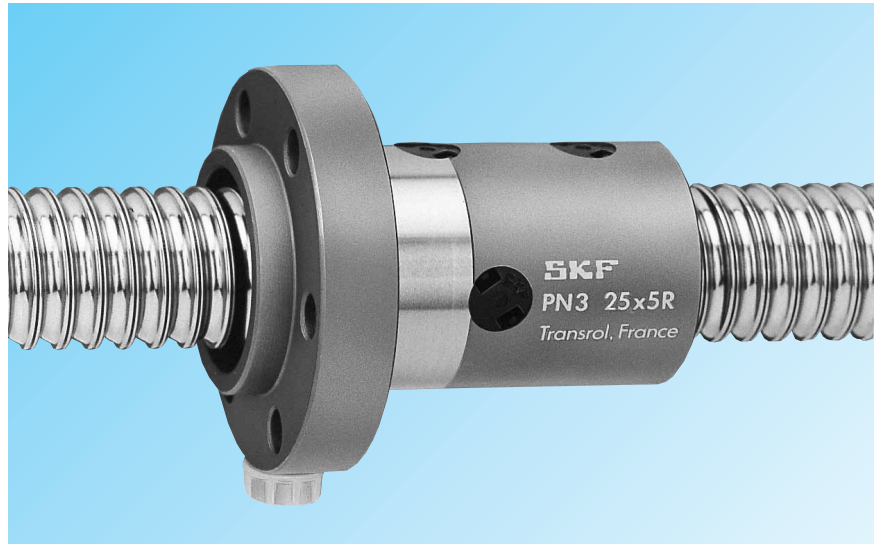
Designation : see page 36

“TN/PN”

Preloaded screw

Rolled thread ball screw with internal recirculation nut.

- standard version : composite inserts
- special version : steel inserts which can act as a safety device for severe requirements. Contact us.

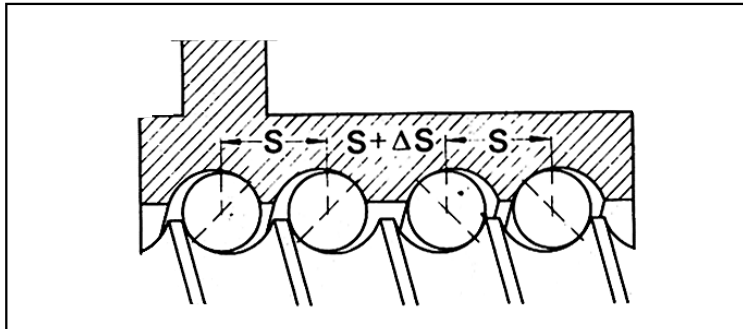


- Nominal diameter
16 to 63 mm
- Lead
5 to 10 mm
- One-piece nut with integral flange offering :
 - **backlash elimination “TN”**
 - **internal preload** for optimum rigidity “PN”
- Wipers available
- Screw shaft can be phosphated on request
- Screw shaft accessories : FLBU - PLBU & BUF off the shelves (see pages 26 to 31)

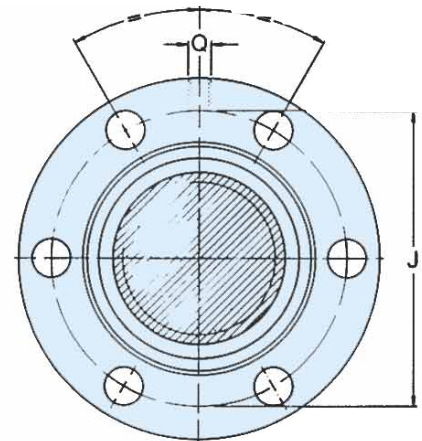
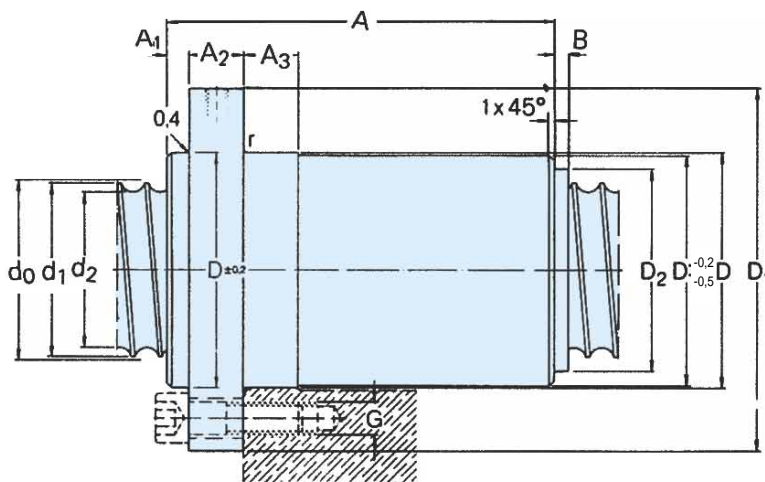
Technical data

Nominal diameter	Right hand lead	Length maximum	Basic load ratings		Number of circuits of balls	No load torque	Preload torque	Mass of nut	Mass of screw shaft	Inertia of one metre of screw shaft	Designation	
			dynamic	static		TN	PN				Backlash elimination	Preload for optimum rigidity
d ₀	P _h		C _a	C _{0a}		T _{pe}	T _{pr}			kgmm ²	—	
mm	mm	mm	kN		—	Nm		kg	kg/m		—	
16	5	2100	4,8	8,3	2 x 2	0,07-0,15	0,085-0,255	0,25	1,3	33	TN 16 x 5 R	PN 16 x 5 R
20	5	5000	6,4	12,2	2 x 2	0,1-0,2	0,11-0,33	0,37	2,0	85	TN 20 x 5 R	PN 20 x 5 R
25	5	5000	10,1	22,6	2 x 3	0,15-0,3	0,15-0,45	0,43	3,3	224	TN 25 x 5 R	PN 25 x 5 R
25	10	5000	10,4	19,5	2 x 2	0,2-0,4	0,21-0,63	0,68	3,5	255	TN 25 x 10 R	PN 25 x 10 R
32	5	6000	14,7	40,2	2 x 4	0,2-0,4	0,25-0,65	0,56	5,6	641	TN 32 x 5 R	PN 32 x 5 R
32	10	6000	31,3	64,4	2 x 3	0,5-1	0,72-1,68	1,5	5,2	550	TN 32 x 10 R	PN 32 x 10 R
40	5	6000	19,4	63,0	2 x 5	0,3-0,6	0,36-0,84	0,81	9,0	1639	TN 40 x 5 R	PN 40 x 5 R
40	10	6000	42,3	101,4	2 x 4	0,8-1,4	0,98-2,02	2,08	8,4	1437	TN 40 x 10 R	PN 40 x 10 R
50	10	6000	56,4	157,1	2 x 5	1-2	1,24-2,56	2,54	13,6	3736	TN 50 x 10 R	PN 50 x 10 R
63	10	6000	63,1	202,1	2 x 5	1,4-2,5	1,84-3,66	3,50	22,0	9913	TN 63 x 10 R	PN 63 x 10 R

Backlash elimination or preload



A displacement Δ_s is ground into the nut ball track between the two series of recirculation inserts : this displacement is made in an unused part of the track. The balls thus have two points of contact even under small external loads.



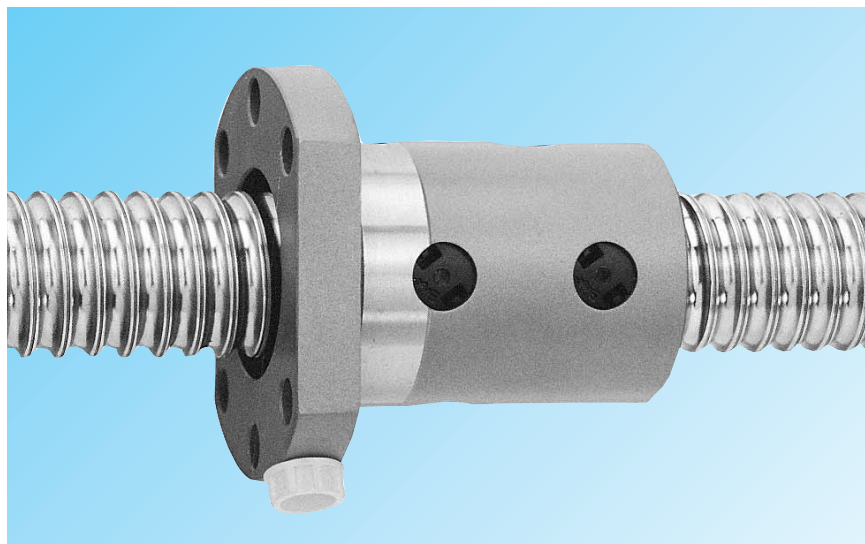
Designation	Screw shaft		Nut							Lubrication hole		Wiper		
	d ₂	d ₁	D g9	D ₁	A	A ₃	A ₂	A ₁	J js12	G	r + 0,2	Q	B	D ₂ js13
— mm														
TN/PN 16 x 5 R	12,7	15,2	28	48	52	11	10	6	38	6 x M5	0,8	M6	0	21
TN/PN 20 x 5 R	16,7	19,4	33	57	58	15	12	6	45	6 x M6	0,8	M6	0	26
TN/PN 25 x 5 R	21,7	24,6	38	62	70	15	12	6	50	6 x M6	0,8	M6	0	31
TN/PN 25 x 10 R	20,5	24,6	43	67	85	15	12	6	55	6 x M6	0,8	M6	0	34
TN/PN 32 x 5 R	28,7	31,6	45	70	80	15	12	6	58	6 x M6	0,8	M6	0	38
TN/PN 32 x 10 R	26,0	31,5	54	87	113	20	16	6	70	6 x M8	0,8	M8 x 1	5	42
TN/PN 40 x 5 R	36,7	39,6	53	80	94	15	14	6	68	6 x M6	0,8	M6	0	46
TN/PN 40 x 10 R	34	39,4	63	95	134	20	16	6	78	6 x M8	1,2	M8 x 1	5	50
TN/PN 50 x 10 R	44	49,7	72	110	157	20	16	6	90	6 x M10	1,2	M8 x 1	5	60
TN/PN 63 x 10 R	57	62,8	85	125	161	20	20	6	105	6 x M10	1,2	M8 x 1	5	73

Designation : see page 36

“TND/PND” Preloaded screw DIN standard

**Rolled thread ball screw
with internal recirculation
nut.**

- standard version : composite inserts
- special version : steel inserts which can act as a safety device for severe requirements. Contact us.

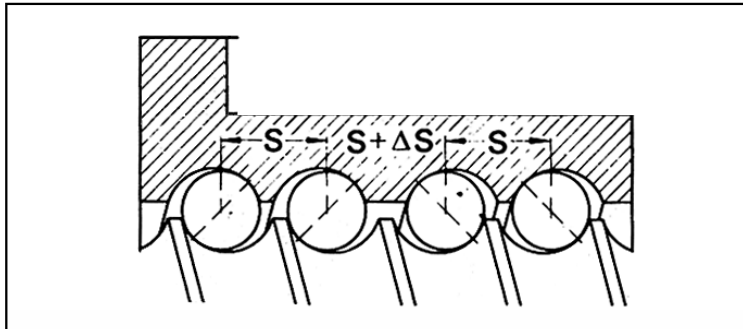


- Nominal diameter
16 to 63 mm
- Lead
5 to 10 mm
- One-piece nut with integral flange offering :
 - **backlash elimination “TND”**
 - **internal preload** for optimum rigidity **“PND”**
- Wipers available
- Screw shaft can be phosphated on request
- Screw shaft accessories :
FLBU - PLBU & BUF off the shelves (see pages 26 to 31)

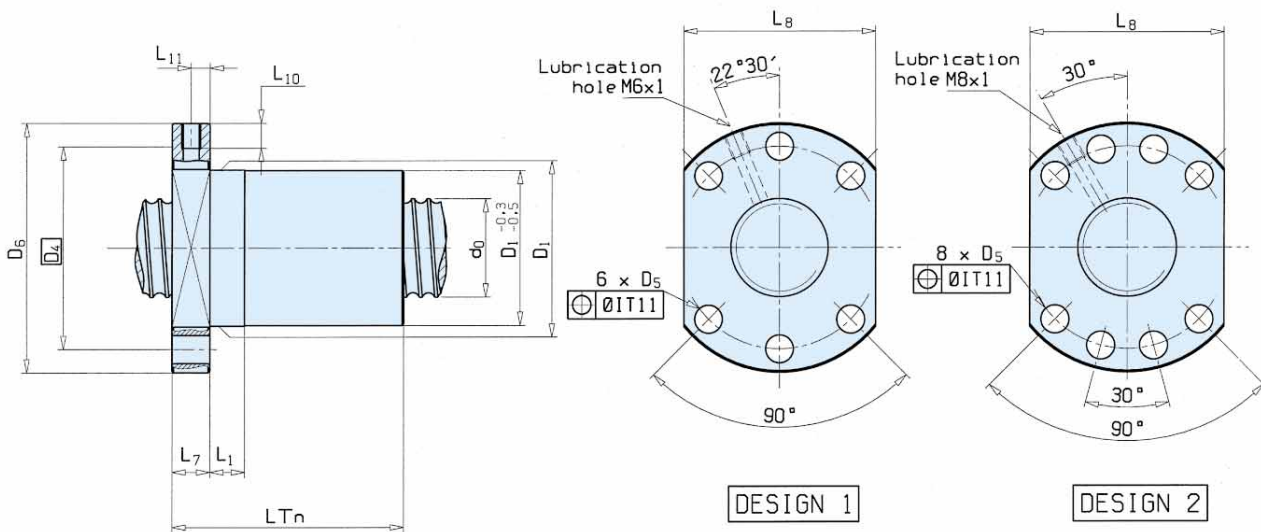
Technical data

Nominal diameter	Right hand lead	Length maximum	Basic load ratings		Number of circuits of balls	No load torque		Preload torque	Mass of nut	Mass of screw shaft	Inertia of one metre of screw shaft	Designation	Preload for optimum rigidity
			dynamic	static		T _{pe}	T _{pr}						
d ₀	P _h		C _a	C _{oa}									
mm	mm	mm	kN		—	Nm		kg	kg/m	kgmm ²	—		
16	5	2100	4,8	8,3	2 x 2	0,07-0,15	0,065-0,13	0,25	1,3	33	TND 16 x 5 R	PND 16 x 5 R	
20	5	5000	6,4	12,2	2 x 2	0,1-0,2	0,13-0,26	0,37	2,0	85	TND 20 x 5R	PND 20 x 5R	
25	5	5000	10,1	22,6	2 x 3	0,15-0,3	0,2-0,4	0,43	3,3	224	TND 25 x 5 R	PND 25 x 5 R	
25	10	5000	10,4	19,5	2 x 2	0,2-0,4	0,3-0,65	0,68	3,5	255	TND 25 x 10 R	PND 25 x 10 R	
32	5	6000	14,7	40,2	2 x 4	0,2-0,4	0,3-0,65	0,56	5,6	641	TND 32 x 5 R	PND 32 x 5 R	
32	10	6000	17,3	40,7	2 x 3	0,3-0,6	0,6-1,1	1,5	5,2	550	TND 32 x 10 R	PND 32 x 10 R	
40	5	6000	19,4	63,0	2 x 5	0,3-0,6	0,5-0,9	0,81	9,0	1639	TND 40 x 5 R	PND 40 x 5 R	
40	10	6000	42,3	101,4	2 x 4	0,8-1,4	1,4-2,95	2,08	8,4	1437	TND 40 x 10 R	PND 40 x 10 R	
50	10	6000	56,4	157,1	2 x 5	1-2	2,16-4	2,54	13,6	3736	TND 50 x 10 R	PND 50 x 10 R	
63	10	6000	63,1	202,1	2 x 5	1,4-2,5	2,6-5,34	3,50	22,0	9913	TND 63 x 10 R	PND 63 x 10 R	

Backlash elimination or preload



A displacement Δ_s is ground into the nut ball track between the two series of recirculation inserts : this displacement is made in an unused part of the track. The balls thus have two points of contact even under small external loads.



Designation	Screw shaft	Nut											Design
		D ₁ g6	D ₄	D ₅ H13	D ₆ h13	L _{tn}	L ₁	L ₇	L ₈ h13	L ₁₀	L ₁₁		
—	mm												
TND/PND 16 x 5 R	16 x 5	28	38	5,5	48	50	10	10	40	8	5	1	
TND/PND 20 x 5 R	20 x 5	36	47	6,6	58	50	10	10	44	8	5	1	
TND/PND 25 x 5 R	25 x 5	40	51	6,6	62	62	10	10	48	8	5	1	
TND/PND 25 x 10 R	25 x 10	40	51	6,6	62	75	16	10	48	8	5	1	
TND/PND 32 x 5 R	32 x 5	50	65	9	80	74	10	12	62	8	6	1	
TND/PND 32 x 10 R	32 x 10	50	65	9	80	102	16	12	62	8	6	1	
TND/PND 40 x 5 R	40 x 5	63	78	9	93	88	10	14	70	8	7	2	
TND/PND 40 x 10 R	40 x 10	63	78	9	93	130	16	14	70	8	7	2	
TND/PND 50 x 10 R	50 x 10	75	93	11	110	155	16	16	85	8	8	2	
TND/PND 63 x 10 R	63 x 10	90	108	11	125	157	16	18	95	8	9	2	

Designation : see page 36