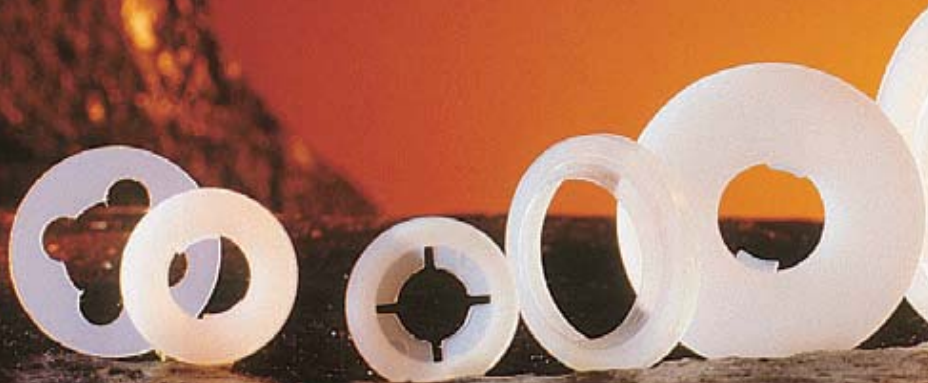




# WASHERS



















10





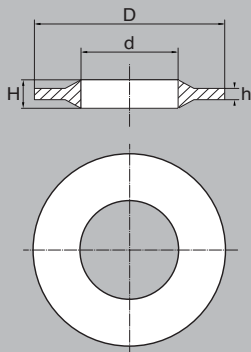
# WASHERS

	> Bülte locking and sealing washers .....	Page <b>14 - 15</b>
	> Double locking and sealing washers .....	Page <b>16 - 17</b>
	> Flat anti-loss washers .....	Page <b>18 - 19</b>
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	> Insulating washers 90° .....	Page <b>42 - 43</b>
	> Self-adhesive washers .....	 Page <b>42 - 43</b>
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	> Metric finishing washers STB20 - 5... ..	Page <b>56 - 57</b>
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# WASHERS > Bülte locking and sealing washers



M	ww	d	D	h	H	Unit of sale	Part N°
M3	1/8"	3,1	7,0	0,7	1,4	1 000	RBM3
M4	5/32"	4,15	9,0	1,25	2,8	1 000	RBM4
M5	3/16"	5,15	10,4	1,4	3,5	1 000	RBM5
M6		6,1	12,0	1,6	4,2	1 000	RBM6
M6 a		6,4	10,7	1,0	3,5	1 000	RBM6 a
M8	5/16"	8,1	15,8	2,1	4,6	1 000	RBM8
M10	3/8"	10,0	19,6	2,1	5,3	1 000	RBM10
M10 a		10,3	17,8	2,1	5,0	1 000	RBM10 a
M12	7/16"	12,0	22,0	2,3	5,8	1 000	RBM12
M14	9/16"	14,0	25,2	2,5	5,5	500	RBM14
M16	5/8"	16,2	29,4	2,6	6,2	500	RBM16
M18	3/4"	18,15	31,5	2,7	6,9	500	RBM18
M20		20,2	35,5	2,8	6,9	500	RBM20
M20 a		20,3	31,5	2,7	7,0	500	RBM20 a
M22	7/8"	22,5	36,0	2,5	6,0	500	RBM22
M24		24,3	37,8	3,0	7,9	500	RBM24
M27		27,3	40,0	3,1	7,9	500	RBM27
M30	1 1/8"	30,2	49,2	3,2	9,3	250	RBM30
M33	1 1/4"	33,2	50,1	3,4	9,5	250	RBM33
M36	1 3/8"	36,4	64,0	3,8	11,8	250	RBM36
M39	1 1/2"	39,2	69,0	3,8	10,3	250	RBM39

14

> Locking and sealing of your assembly washer + screw, or standard nut (category 8.8 or less).

> No Nylstop or lock nut required.

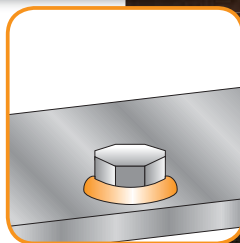
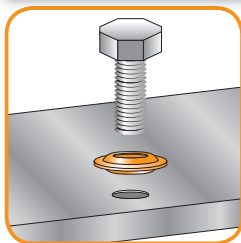
> Easier stock management.

> Reduces purchasing cost

> Absorbs vibrations, corrosion-resistance, protection against electrolytic action and protection of the surface of materials to be assembled.

> Product testing is advised before use in production.

M	ww	d	D	h	H	Unit of sale	Part N°
-	1/2"	12,8	23,0	2,2	5,5	1 000	RBM1/2
-	3/4"	19,5	31,5	2,7	6,9	1 000	RBM3/4
-	1"	25,6	45,0	3,0	8,0	1 000	RBM1
-	R3/4"	19,2	34,0	2,0	5,6	1 000	RBMR3/4



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / PP / POM / PTFE ...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



15



Black Nylon



PE



PP



POM

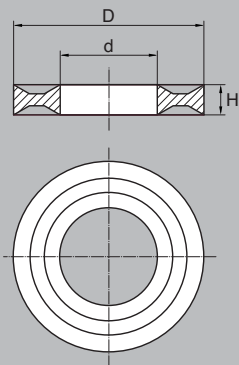


PTFE

...



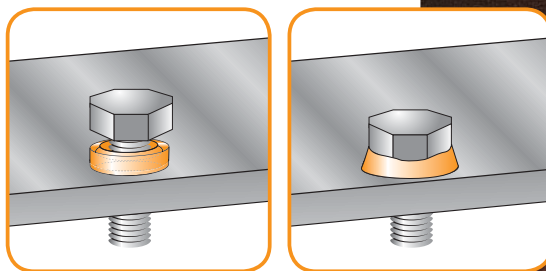
# WASHERS > Double locking and sealing washers



M	ww	d	D	H	Unit of sale	Part N°
M2	5/64"	2,1	5,0	2,0	1 000	DOFA2
M2,5	3/32"	2,6	6,0	2,2	1 000	DOFA25
M3	1/8"	3,1	8,0	2,5	1 000	DOFA3
M4	5/32"	4,2	10,0	2,8	1 000	DOFA4
M5	3/16"	5,2	10,7	3,0	1 000	DOFA5
M6		6,2	12,7	3,8	1 000	DOFA6
M8	5/16"	8,2	16,2	4,2	1 000	DOFA8
M10	3/8"	10,2	20,0	5,0	1 000	DOFA10
M12	7/16"	12,2	24,0	5,2	1 000	DOFA12
M14		14,2	26,0	5,6	500	DOFA14
M16	5/8"	16,2	30,0	5,7	500	DOFA16
M20	3/4"	20,3	36,0	6,8	500	DOFA20

16

- > Screws, bolts and nuts are locked.
- > Sealing is achieved thanks to internal and external shoulders (the internal shoulder goes into the thread of the screw and the external one fits around the head of the screw/nut).
- > Vibrations are absorbed.
- > Perfect insulation and security.



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

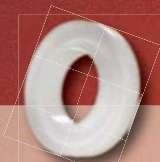
- Black Nylon / PE / PP / POM / PVDF from M5 to M12 only.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



17



Black Nylon



PE



PP



POM



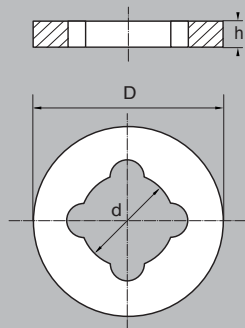
PVDF



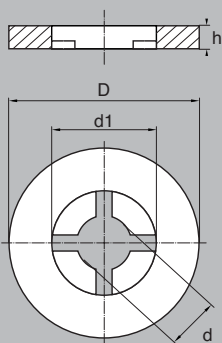


# WASHERS

- > Flat anti-loss washers
- > Holding washers



M	d	D	h	Unit of sale	Part N°
M8	6,4	14,0	0,5	10 000	80590100
M10	8,4	20,0	0,5	1 000	80599100
M10	8,4	20,0	0,8	10 000	80599108
M10	8,4	20,0	1,0	10 000	80599110
M12	9,8	20,0	0,5	1 000	80514400
M12	9,8	20,0	0,8	10 000	80514408
M12	9,8	20,0	1,0	10 000	80514410
M16	13,5	28,0	0,5	1 000	80516000
M16	13,5	28,0	0,8	10 000	80516008
M16	13,5	28,0	1,0	10 000	80516010



M	d	d1	D	h	Unit of sale	Part N°
M3	2,4	3,9	7,0	1,0	1 000	RM3
M4	3,4	5,0	9,0	1,0	1 000	RM4
M5	4,5	7,0	10,0	1,0	1 000	RM5
M6	5,5	9,0	12,5	1,5	1 000	RM6
M8	7,0	11,0	16,0	1,5	1 000	RM8
M8	7,1	11,0	18,0	1,5	1 000	RM8/1

> Used for preliminary mounting of screws and bolts with no risk of loss.

> Allows ease of assembly.

> Vibrations are absorbed.

## MATERIALS - COLOURS

### Flat anti-loss washers

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black Nylon / PE / PP / POM / ...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### Holding washers

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black Nylon / PE / PP / POM / ...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

Flat anti-loss washer >>



<< Holding washer

19



Black Nylon



PE



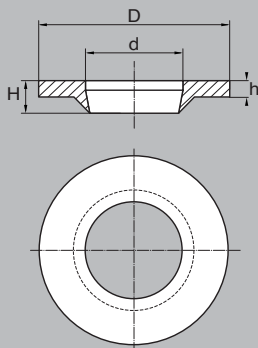
PP



POM



# WASHERS > Bülte anti - loss washers



M	d	D	h	H	Unit of sale	Part N°
M3,5	3,6	9,15	1,2	2,7	1 000	RIMP35
M4	4,2	9,0	1,2	3,0	1 000	RIMP4
M5	5,0	10,1	1,65	3,1	1 000	RIMP5
M6	6,3	12,5	1,3	2,75	1 000	RIMP6
M8	8,25	16,2	1,65	3,5	1 000	RIMP8
M10	10,5	15,0	2,1	4,3	1 000	RIMP10

ww	d	D	h	H	Unit of sale	Part N°
R 1/8"	10,5	15,0	2,1	4,3	1 000	RIMP1/8"
R 1/4"	13,2	18,9	2,6	4,5	500	RIMP1/4"
R 3/8"	17,7	23,0	2,15	4,5	500	RIMP3/8"
R 1/2"	21,5	27,6	2,1	4,2	500	RIMP1/2"

Self tapping screw	d	D	h	H	Unit of sale	Part N°
3,5 mm	3,6	9,15	1,2	2,7	1 000	RIMP3.5
4,2 mm	4,2	9,0	1,2	3,0	1 000	RIMP4
4,8 mm	5,0	10,1	1,65	3,1	1 000	RIMP5

20

- > Prevents the loss of screws.
- > The diameter of the taper is smaller than the diameter of the screw used.
- > The tapered part squashes and fully enters the pitch of the thread.
- > Enables preliminary assembly where it cannot be easily done and so save time.
- > Removal is only possible by unscrewing the washer.



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / Black PE / PP / POM.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



21



Black Nylon



PE



Black PE



PP

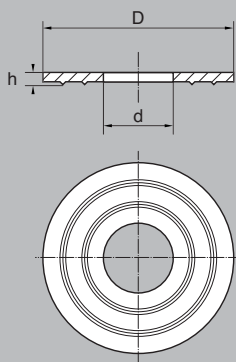


POM

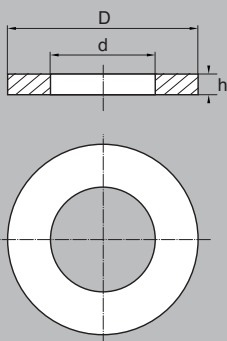


# WASHERS

- > Flat sealing washers
- > Nylon glass filled washers



M	d	D	h	Unit of sale	Part N°
M8	8,0	40,0	2,0	1 000	REP840
M10	10,0	40,0	2,0	1 000	REP1040
M10	10,5	22,0	2,0	1 000	REP1022
M10	10,5	30,0	2,0	1 000	REP1030
M12	13,5	24,0	2,5	1 000	REP1324
M12	13,5	52,0	2,5	1 000	REP1352
Ø 26	26,0	34,0	2,5	1 000	REP2634



M	d	D	h	Unit of sale	Part N°
M5	5,3	10,0	1,0	1 000	1255AV
M6	6,4	12,0	1,6	1 000	1256AVN
M7	7,4	14,0	1,6	1 000	1257AV
M8	8,4	16,0	1,6	1 000	1258AVN
M10	10,5	20,0	2,0	1 000	12510AVN
M12	13,0	24,0	2,5	1 000	12512AV
M14	15,0	28,0	2,5	500	12514AVN
M16	17,0	30,0	3,0	500	12516AV

## MATERIALS - COLOURS

### Flat sealing washers

#### STANDARD :

- Natural Polyethylene (PE).

#### ON REQUEST :

- Black Polyethylene (PE).

### Nylon glass filled washers

#### STANDARD :

- Natural Nylon 30% glass filled.

#### ON REQUEST :

- Black Nylon 30% glass filled.
- Colours : see RAL colour chart page 510 / 511.

Flat sealing  
washer >>



<< Nylon glass filled  
washer



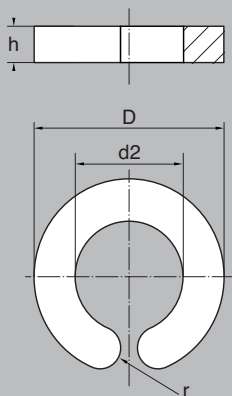
Black PE



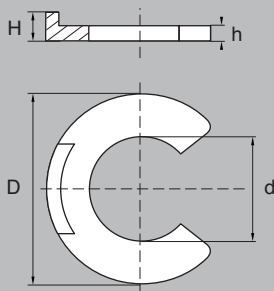
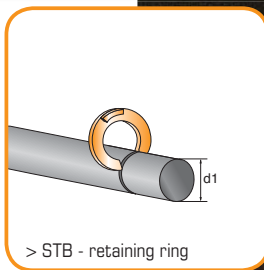
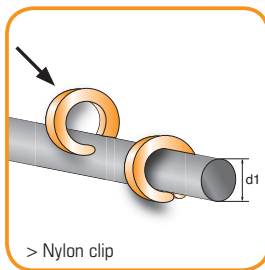
Black Nylon glass filled



# WASHERS > Nylon clips > STB - retaining rings



d1	d2	D	h	r	Unit of sale	Part N°
3,0	2,5	6,0	2,0	0,8	1 000	STB16013
4,0	3,5	7,5	2,5	1,0	1 000	STB16014
5,0	4,5	9,0	2,5	1,1	1 000	STB16015
6,0	5,3	11,0	3,0	1,4	1 000	STB16016
8,0	7,0	13,0	3,0	1,5	1 000	STB16018
10,0	9,0	16,0	3,5	1,7	1 000	STB160110
12,0	11,0	19,0	4,0	2,0	1 000	STB160112



d1	d2	D	h	H	Unit of sale	Part N°
2,3	3-4	6,0	1,0	1,05	1 000	STB160223
3,2	4-5	7,0	1,0	1,05	1 000	STB160232
4,0	5-7	9,0	1,1	1,15	1 000	STB16024
5,0	6-8	11,0	1,1	1,15	1 000	STB16025
7,0	8-11	14,0	1,3	1,35	1 000	STB16027
9,0	10-14	18,5	1,4	1,5	1 000	STB16029
12,0	13-18	23,0	1,6	1,7	1 000	STB160212

Specially designed for grooved shafts/ rollers/ pins.  
Designed as clips in order to facilitate assembly and disassembly.  
Work like anti-friction washers.

## MATERIALS - COLOURS

### Nylon clips

#### STANDARD :

- Red Nylon

#### ON REQUEST :

- Black Nylon / POM / PE / PP.
- Minimum quantity on request.

• Colours : see RAL colour chart page 510 / 511.

### STB - retaining rings

#### STANDARD :

- Black POM.

#### ON REQUEST :

- White POM / Red POM / PE / PP.
- Minimum quantity on request.

• Colours : see RAL colour chart page 510 / 511.

Nylon clip >>



<< STB - retaining ring



Black Nylon



Red POM



PE



PP



White POM



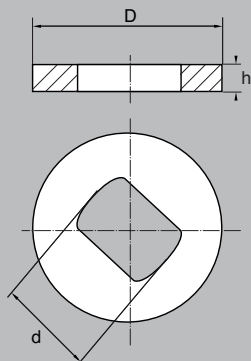
Red POM





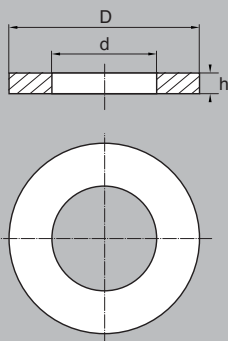
# WASHERS

- > Brake washers
- > Black nylon washers



M	d	D	h	Unit of sale	Part N°
M3,5	3,2	9,0	0,8	1 000	RF35*
M4	3,4	10,8	0,5	1 000	RF4*
M5	4,5	11,5	0,8	1 000	RF5
M6	6,4	12,5	0,6	1 000	RF6

\* The interior shape is different from the one shown on the drawing and the photo (M3.5 and M4).



M	d	D	h	Unit of sale	Part N°
M4	4,3	9,0	0,8	1 000	1254B
M5	5,3	10,0	1,0	1 000	1255B
M6	6,4	12,0	1,6	1 000	1256BN
M7	7,4	14,0	1,6	1 000	1257B
M8	8,4	16,0	1,6	1 000	1258BN
M10	10,5	20,0	2,0	1 000	12510BN
M12	13,0	24,0	2,5	1 000	12512B
M14	15,0	28,0	2,5	500	12514BN
M16	17,0	30,0	3,0	500	12516B

## MATERIALS - COLOURS

### Brake washers

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black Nylon / POM / PP / PE.
- Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### Black nylon washers

#### STANDARD :

- Black Nylon.

#### ON REQUEST :

- Black PE / Black POM.
- Other dimensions on request.

Brake washer >>



<< Black Nylon washer



Black Nylon



POM



PP



PE

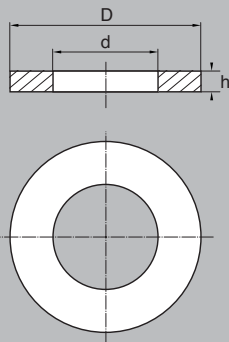


Black PE



Black POM

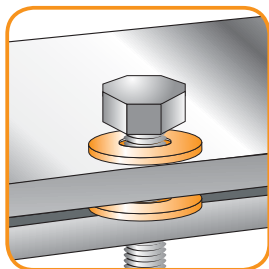




M	d	D	h	Unit of sale	Part N°
M1,6	1,7	4,0	0,3	1 000	1251,6
M1,7	1,8	4,5	0,3	1 000	1251,7
M2	2,2	5,0	0,3	1 000	1252
M2,3	2,5	6,0	0,5	1 000	1252,3
M2,5	2,7	6,0	0,5	1 000	1252,5
M2,6	2,8	7,0	0,5	1 000	1252,6
M3	3,2	7,0	0,5	1 000	1253
M3,5	3,7	8,0	0,5	1 000	1253,5
M4	4,3	9,0	0,8	1 000	1254
M5	5,3	10,0	1,0	1 000	1255
M6	6,4	12,5	1,6	1 000	1256
M6	6,4	12,0	1,6	1 000	1256N
M7	7,4	14,0	1,6	1 000	1257
M8	8,4	17,0	1,6	1 000	1258
M8	8,4	16,0	1,6	1 000	1258N
M10	10,5	21,0	2,0	1 000	12510
M10	10,5	20,0	2,0	1 000	12510N
M12	13,0	24,0	2,5	1 000	12512
M14	15,0	30,0	3,0	500	12514
M14	15,0	28,0	2,5	500	12514N
M16	17,0	30,0	3,0	500	12516
M18	19,0	34,0	3,0	500	12518
M20	21,0	37,0	3,0	500	12520
M22	23,0	39,0	3,0	500	12522
M24	25,0	44,0	4,0	500	12524
M26	27,0	50,0	4,0	500	12526
M27	28,0	50,0	4,0	500	12527
M28	29,0	50,0	4,0	500	12528
M30	31,0	56,0	4,0	500	12530
M32	33,0	60,0	5,0	250	12532
M33	34,0	60,0	5,0	250	12533
M35	36,0	66,0	5,0	250	12535
M36	37,0	66,0	5,0	250	12536
M38	39,0	72,0	6,0	250	12538
M39	40,0	72,0	6,0	250	12539
M40	41,0	72,0	6,0	250	12540

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- > Protects surfaces and offers good electrical insulation.
- > Resists corrosion and most dilute acids.
- > Absorbs shocks and vibrations.
- > Combustibility UL94-V2



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.
- PC from M5 up to M12 (Polycarbonate).

### ON REQUEST :

- Black Nylon / POM / PE / PS / PVDF / PP / Nylon glass filled.
- Colours : see RAL colour chart page 510 / 511.



29



Black Nylon



POM



PE



PS



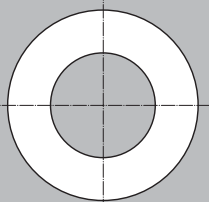
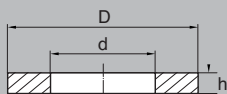
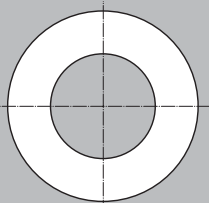
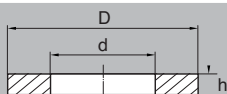
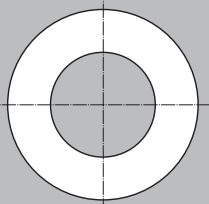
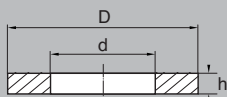
PVDF



PP



# WASHERS > Polypropylene > PTFE > PVDF



M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	1253Y
M4	4,3	9,0	0,8	1 000	1254Y
M5	5,3	10,0	1,0	1 000	1255Y
M6	6,4	12,5	1,6	1 000	1256Y
M8	8,4	17,0	1,6	1 000	1258Y
M10	10,5	21,0	2,0	1 000	12510Y
M12	13,0	24,0	2,5	1 000	12512Y
M14	15,0	30,0	3,0	500	12514Y
M16	17,0	30,0	3,0	500	12516Y
M18	19,0	34,0	3,0	500	12518Y
M20	21,0	37,0	3,0	500	12520Y
M22	23,0	39,0	3,0	500	12522Y
M24	25,0	44,0	4,0	500	12524Y

M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	1253J
M4	4,3	9,0	0,8	1 000	1254J
M5	5,3	10,0	1,0	1 000	1255J
M6	6,4	12,0	1,5	1 000	1256J
M8	8,4	16,0	1,5	1 000	1258J
M10	10,5	20,0	2,0	1 000	12510J
M12	13,0	24,0	2,5	1 000	12512J
M16	17,0	30,0	3,0	500	12516J

M	d	D	h	Unit of sale	Part N°
M4	4,3	9,0	1,0	1 000	1254L
M5	5,3	10,0	1,0	1 000	1255L
M6	6,4	12,0	1,6	1 000	1256LN
M8	8,4	16,0	1,6	100	1258LN
M10	10,5	20,0	2,0	100	12510LN
M12	13,0	24,0	2,5	100	12512L
M14	15,0	28,0	2,5	100	12514LN

## MATERIALS - COLOURS

### PP washers

#### STANDARD :

- Natural Polypropylene (PP).

#### ON REQUEST :

- PP Glass filled, black PP,  
Minimum quantity on request.
- Colours : see RAL colour chart.

### PTFE washers

#### STANDARD :

- White PTFE.

#### ON REQUEST :

- PTFE glass filled / PTFE + carbon PTFE + graphite.  
Minimum quantity on request.
- Colours : see RAL colour chart.

### PVDF washers

#### STANDARD :

- Natural PVDF.

#### ON REQUEST :

- Black PVDF.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

**Polypropylene** >>  
washer



<< **PTFE** washer



**PVDF** washer >>



PP glass filled



Black PP



PTFE glass filled



PTFE carbon



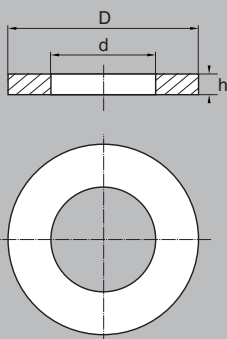
PTFE graphite



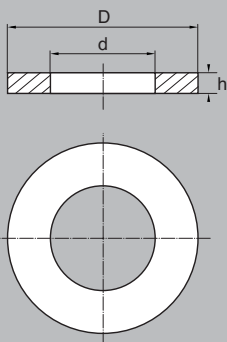
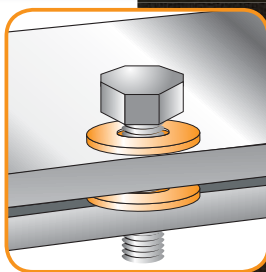
Black PVDF



# WASHERS > Hard PVC > Soft PVC



M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	1253AL
M4	4,3	9,0	1,0	1 000	1254AL
M5	5,3	10,0	1,0	1 000	1255AL
M6	6,4	12,0	1,5	1 000	1256ALN
M6	6,4	12,5	1,5	1 000	1256AL
M8	8,4	16,0	1,5	1 000	1258ALN
M8	8,4	17,0	1,5	1 000	1258AL
M10	10,5	20,0	2,0	1 000	12510AL
M12	13,0	24,0	2,0	1 000	12512AL
M16	17,0	30,0	3,0	500	12516AL



M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	1253PVCS
M4	4,3	9,0	1,0	1 000	1254PVCS
M5	5,3	10,0	1,0	1 000	1255PVCS
M6	6,4	12,5	1,5	1 000	1256PVCS
M8	8,4	17,0	1,5	1 000	1258PVCS
M10	10,5	21,0	2,0	1 000	12510PVCS
M12	13,0	24,0	2,5	1 000	12512PVCS
M16	17,0	30,0	3,0	500	12516PVCS

## MATERIALS - COLOURS

### Hard PVC washers

#### STANDARD :

- White hard PVC.

#### ON REQUEST :

- Grey, red, black, transparent hard PVC.  
Minimum quantity on request.

### Soft PVC washers

#### STANDARD :

- Natural soft PVC, hardness 70 +/-5 Shore.

#### ON REQUEST :

- Natural soft PVC, hardness 80 +/-5 Shore.

Hard PVC washers >>



<< Soft PVC washers



Grey hard PVC



or : red



or : black



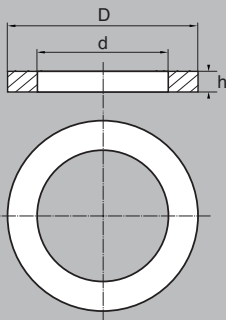
or : transparent



Soft PVC 80° Sh.



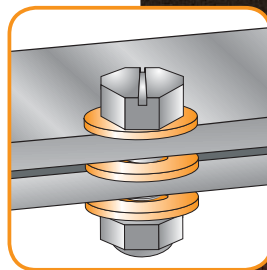




M	d	D	h	Unit of sale	Part N°
M2	2,2	4,5	0,3	1 000	<b>4332</b>
M2,5	2,7	5,0	0,5	1 000	<b>4332,5</b>
M3	3,2	6,0	0,5	1 000	<b>4333</b>
M4	4,3	8,0	0,5	1 000	<b>4334</b>
M5	5,3	9,0	1,0	1 000	<b>4335</b>
M6	6,4	11,0	1,5	1 000	<b>4336</b>
M8	8,4	15,0	1,5	1 000	<b>4338</b>
M10	10,5	18,0	1,6	1 000	<b>43310</b>
M12	13,0	20,0	2,0	1 000	<b>43312</b>
M14	15,0	24,0	2,5	500	<b>43314</b>
M16	17,0	28,0	2,5	500	<b>43316</b>
M18	19,0	30,0	3,0	500	<b>43318</b>
M20	21,0	34,0	3,0	500	<b>43320</b>

34

- > Protects surfaces and offers good electrical insulation.
- > Resists corrosion and most dilute acids.
- > Absorbs shocks and vibrations.
- > Combustibility UL94-V2.



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / PP / POM / PC / PVDF...
- Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



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Black Nylon



PE



PP



POM

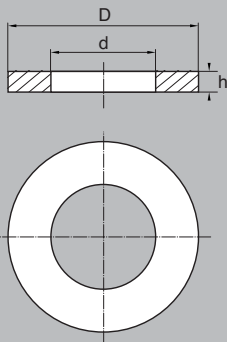


PC



PVDF

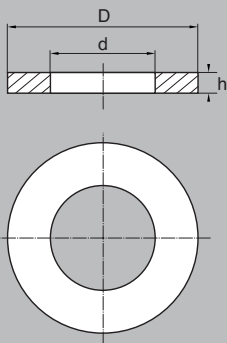




M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	RF32AT
M4	4,3	9,0	0,8	1 000	RF43AT
M4	4,3	9,0	1,0	1 000	RF43ATN
M5	5,3	10,0	1,0	1 000	RF53AT
M6	6,4	12,5	1,0	1 000	RF64AT
M8	8,4	17,0	1,0	1 000	RF84AT
M10	10,5	21,0	1,0	1 000	RF105AT

> Highly resistant to oils and petrol.

> Also used in sanitation and food industry (confirmation KTW).



M	d	D	h	Unit of sale	Part N°
M3	3,2	7,0	0,5	1 000	RNE032CW
M4	4,3	9,0	1,0	1 000	RNE043CW
M5	5,3	10,0	1,0	1 000	RNE053CW
M6	6,4	12,5	1,0	1 000	RNE064CW
M8	8,4	17,0	1,5	1 000	RNE084CW
M10	10,5	21,0	1,5	1 000	RNE0105CW
M12	13,0	24,0	2,0	1 000	RNE0130CW
M16	17,0	30,0	2,0	1 000	RNE0170CW

> Resistant to tensile strength 6MPa.

> Tensile elongation from 200 to 300% according to the type of hardness.

> Good resistance to ozone.

## MATERIALS - COLOURS

### Fibre washers

#### STANDARD :

- Red Fibre.

#### ON REQUEST :

- Black Fibre, grey Fibre.
- Minimum quantity on request.

### Neoprene washers

#### STANDARD :

- Black Neoprene (hardness between 45 and 65 Sh.)

#### ON REQUEST :

- Black Neoprene (hardness 80+/-5 Shore).
- Light Neoprene (hardness 60+/-5 Sh.).
- Minimum quantity on request.

Fibre washer >>



<< Neoprene washer



Black Fibre



Grey Fibre

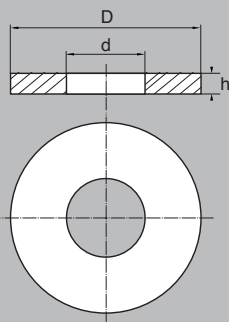


Black Neo 80° Sh.



Light Neo 60° Sh.

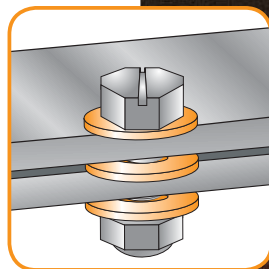




M	d	D	h	Unit of sale	Part N°
M2,5	2,7	8,0	0,8	1 000	90212,5
M3	3,2	9,0	0,8	1 000	90213
M4	4,3	12,0	1,0	1 000	90214
M5	5,3	15,0	1,2	1 000	90215
M6	6,4	18,0	1,6	1 000	90216
M8	8,4	25,0	2,0	1 000	90218
M8	8,4	24,0	2,0	1 000	90218N
M10	10,5	30,0	2,5	1 000	902110
M12	13,0	40,0	3,0	1 000	902112
M12	13,0	37,0	3,0	1 000	902112N
M14	15,0	44,0	3,0	1 000	902114
M16	17,0	50,0	3,0	500	902116
M18	19,0	56,0	4,0	500	902118
M20	21,0	60,0	4,0	500	902120

38

- > Protects surfaces and offers good electrical insulation.
- > Resists corrosion and most dilute acids.
- > Absorbs shocks and vibrations.
- > Combustibility UL94-V2.



## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / PP / POM / PVDF / PTFE...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



Black Nylon



PE



PP



POM

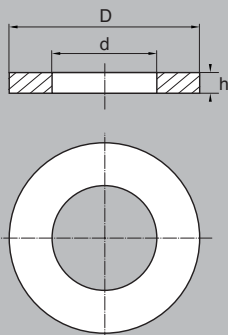


PVDF



PTFE





> Protects surfaces and offers good electrical insulation.

> Resists corrosion and most dilute acids.

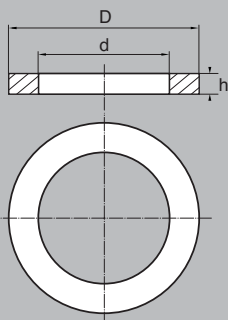
> Absorbs shocks and vibrations.

> Combustibility UL94-V2.

## Washer "MU"

M	d	D	h	Unit of sale	Part N°
M2	2,2	5,0	0,3	1 000	1252
M2,5	2,7	7,0	0,5	1 000	276112,5MU
M3	3,2	8,0	0,8	1 000	276113MU
M4	4,2	10,0	0,8	1 000	276114MU
M5	5,2	12,0	1,0	1 000	276115MU
M6	6,2	14,0	1,2	1 000	276116MU
M8	8,2	18,0	1,5	1 000	276118MU
M10	10,2	22,0	2,0	1 000	2761110MU
M12	12,5	27,0	2,5	1 000	2761112MU
M14	14,5	30,0	2,5	500	2761114MU
M16	16,5	32,0	3,0	500	2761116MU
M18	18,5	36,0	3,0	500	2761118MU
M20	20,5	40,0	3,0	500	2761120MU

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## Washer "ZU"

M	d	D	h	Unit of sale	Part N°
M2,5	2,7	5,0	0,5	1 000	276112,5ZU
M3	3,2	6,0	0,8	1 000	276113ZU
M4	4,3	8,0	0,5	1 000	4334
M5	5,2	10,0	1,0	1 000	276115ZU
M6	6,2	12,0	1,0	1 000	276116ZU
M8	8,2	16,0	1,6	1 000	276118ZU
M10	10,5	21,0	2,0	1 000	2761110ZU

## MATERIALS - COLOURS

### Washers "MU"

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black Nylon / PE / PP / POM / ...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### Washers "ZU"

#### STANDARD :

- Natural Nylon.

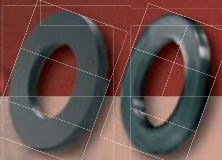
#### ON REQUEST :

- Black Nylon / PE / PP / POM / ...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

Washer "MU" >>



<< Washer "ZU"



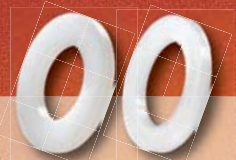
Black Nylon



PE



PP



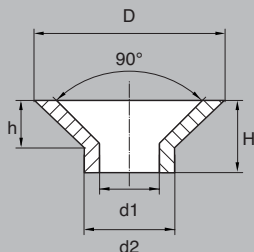
POM





# WASHERS

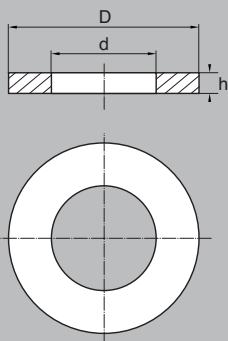
- > Insulating washers 90°
- > Self - adhesive washers



M	ww	d1	d2	D	H	h	Unit of sale	Part N°
M4	5/32"	4,1	5,9	10,4	4,3	2,3	1 000	STB1504
M5	3/16"	5,1	6,9	12,4	4,5	2,8	1 000	STB1505
M6		6,1	7,9	14,4	5,0	3,3	1 000	STB1506
M8	5/16"	8,1	9,9	18,6	6,0	4,4	1 000	STB1508
M10	3/8"	10,1	11,9	22,8	7,0	5,5	1 000	STB15010
M12	7/16"	12,1	13,0	27,5	8,5	6,6	1 000	STB15012

> Insulating washers for assembly with countersunk head screws.

> Absorbs shocks and vibrations.



M	d	D	h	Unit of sale	Part N°
M4	4,3	9,0	1,0	1 000	1254ADH
M5	5,3	10,0	1,0	1 000	1255ADH
M6	6,4	12,5	1,5	1 000	1256ADH
M8	8,4	17,0	1,5	1 000	1258ADH
M10	10,5	21,0	2,0	1 000	12510ADH

> Adhesive only suitable as an aid to mounting.

## MATERIALS - COLOURS

### Insulating washers 90°

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black Nylon / PP.
- Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### Self-adhesive washers

#### STANDARD :

- Natural Nylon.

#### ON REQUEST :

- Black PE / PP / PE...
- Minimum quantity on request.

Insulating  
washer 90° >>



<< Self - adhesive washer



Black Nylon



PP



Black PE



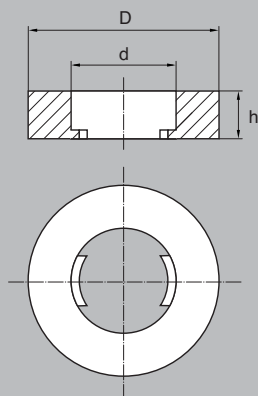
PP



PE



# WASHERS > Bûle retaining washers

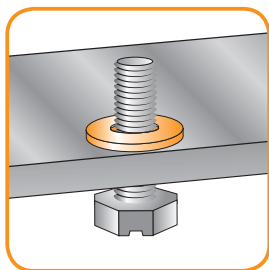


M	d	D	h	Unit of sale	Part N°
M3	3,1	6,0	2,5	1 000	3206025
M3	3,1	6,0	3,0	10 000	3206030
M3	3,1	6,0	3,5	10 000	3206035
M3	3,1	6,0	4,0	10 000	3206040
M4	4,5	8,1	2,5	1 000	4308025
M4	4,5	8,1	3,0	10 000	4308030
M4	4,5	8,1	3,5	10 000	4308035
M4	4,5	8,1	4,0	10 000	4308040
M4	4,2	9,8	2,5	1 000	4310025
M4	4,2	9,8	3,0	10 000	4310030
M4	4,2	9,8	3,5	10 000	4310035
M4	4,2	9,8	4,0	10 000	4310040
M5	5,5	10,0	2,5	1 000	5310025
M5	5,5	10,0	3,0	10 000	5310030
M5	5,5	10,0	3,5	10 000	5310035
M5	5,5	10,0	4,0	10 000	5310040
M6	6,4	12,5	2,5	1 000	6412525
M6	6,4	12,5	3,0	10 000	6412530
M6	6,4	12,5	3,5	10 000	6412535
M6	6,4	12,5	4,0	10 000	6412540
M8	8,3	17,0	2,5	1 000	8317025
M8	8,3	17,0	3,0	10 000	8317030
M8	8,3	17,0	3,5	10 000	8317035
M8	8,3	17,0	4,0	10 000	8317040
M10	10,4	21,1	2,5	1 000	1052125
M10	10,4	21,1	3,0	10 000	1052130
M10	10,4	21,1	3,5	10 000	1052135
M10	10,4	21,1	4,0	10 000	1052140
M10	10,8	30,0	2,5	1 000	1053025

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> Used for preliminary mounting of screws and bolts with no risk of loss.

> Good electrical insulation.



Other dimensions and thicknesses on request.  
General tolerance: +/- 0.2 mm according to the material.

## MATERIALS - COLOURS

### STANDARD :

- Natural PE.

### ON REQUEST :

- Black PE / PP / POM / Nylon / Black Nylon...  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



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Black PE



PP



POM



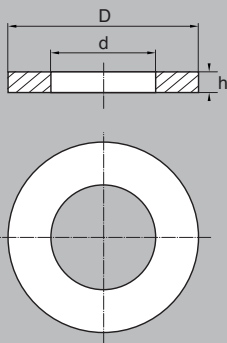
Nylon



Black Nylon



# WASHERS > Locating washers

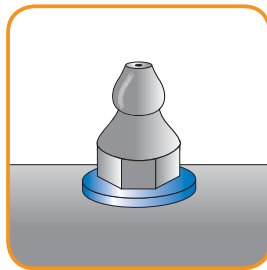


d	D	Colour	Lubrication	Unit of sale	Part N°
5,3	10,0	red	daily	1 000	PE53100T
5,3	10,0	yellow	weekly	1 000	PE53100JA
5,3	10,0	blue	monthly	1 000	PE53100S
6,4	12,5	red	daily	1 000	PE64125T
6,4	12,5	yellow	weekly	1 000	PE64125JA
6,4	12,5	blue	monthly	1 000	PE64125S
6,4	15,0	red	daily	1 000	PE64150T
6,4	15,0	yellow	weekly	1 000	PE64150JA
6,4	15,0	blue	monthly	1 000	PE64150S
7,4	14,0	red	daily	1 000	PE73140T
7,4	14,0	yellow	weekly	1 000	PE73140JA
7,4	14,0	blue	monthly	1 000	PE73140S
8,4	17,0	red	daily	1 000	PE84170T
8,4	17,0	yellow	weekly	1 000	PE84170JA
8,4	17,0	blue	monthly	1 000	PE84170S
10,5	15,0	red	daily	1 000	PE105150T
10,5	15,0	yellow	weekly	1 000	PE105150JA
10,5	15,0	blue	monthly	500	PE105150S
13,0	24,0	red	daily	500	PE130240T
13,0	24,0	yellow	weekly	500	PE130240JA
13,0	24,0	blue	monthly	500	PE130240S

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Locating washers are manufactured in three different colours so that you can quickly identify the regular maintenance periods on machines :

- > **Red** : daily lubrication.
- > **Yellow**: weekly lubrication.
- > **Blue** : monthly lubrication.



## MATERIALS - COLOURS

### STANDARD :

- PE red, yellow, blue.

### ON REQUEST :

- PE green, orange, beige... / PP / POM / Nylon...
- Minimum quantity on request.



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Yellow PE



Blue PE



Green PE



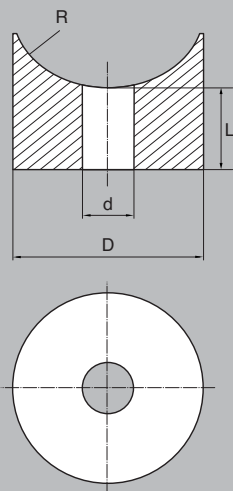
Orange PE



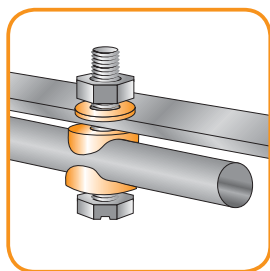
Beige PE



# WASHERS > Saddle washers / spacers



d	D	R	L	Unit of sale	Part N°
5,3	15,0	8,0	3,0	5 000	RPT53153
5,3	15,0	8,0	4,0	5 000	RPT53154
5,3	15,0	8,0	5,0	5 000	RPT53155
5,3	15,0	8,0	6,0	5 000	RPT53156
5,3	15,0	8,0	7,0	5 000	RPT53157
5,3	15,0	8,0	8,0	5 000	RPT53158
5,3	15,0	8,0	9,0	5 000	RPT53159
5,3	15,0	8,0	10,0	5 000	RPT531510
5,3	15,0	8,0	11,0	5 000	RPT531511
5,3	15,0	8,0	12,0	5 000	RPT531512
5,3	15,0	8,0	13,0	5 000	RPT531513
5,3	15,0	8,0	14,0	5 000	RPT531514
5,3	15,0	8,0	15,0	5 000	RPT531515
5,3	15,0	8,0	16,0	5 000	RPT531516
5,3	15,0	8,0	17,0	5 000	RPT531517
5,3	15,0	8,0	18,0	5 000	RPT531518
5,3	15,0	8,0	19,0	5 000	RPT531519
5,3	15,0	8,0	20,0	5 000	RPT531520
5,3	15,0	8,0	21,0	5 000	RPT531521
5,3	15,0	8,0	22,0	5 000	RPT531522
5,3	15,0	8,0	23,0	5 000	RPT531523
5,3	15,0	8,0	24,0	5 000	RPT531524
5,3	15,0	8,0	25,0	5 000	RPT531525
5,3	15,0	8,0	26,0	5 000	RPT531526
5,3	15,0	8,0	27,0	5 000	RPT531527
5,3	15,0	8,0	28,0	5 000	RPT531528
5,3	15,0	8,0	29,0	5 000	RPT531529
5,3	15,0	8,0	30,0	5 000	RPT531530



→ Continued next page.

## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / PP / POM / PS / Black PE.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.



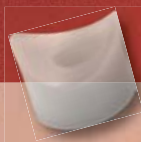
49



Black Nylon



PE



PP



POM



PS



Black PE









L	Unit of sale	Part N°
3,0	5 000	RPT64123
4,0	5 000	RPT64124
5,0	5 000	RPT64125
6,0	5 000	RPT64126
7,0	5 000	RPT64127
8,0	5 000	RPT64128
9,0	5 000	RPT64129
10,0	5 000	RPT641210
11,0	5 000	RPT641211
12,0	5 000	RPT641212
13,0	5 000	RPT641213
14,0	5 000	RPT641214
15,0	5 000	RPT641215
16,0	5 000	RPT641216
17,0	5 000	RPT641217
18,0	5 000	RPT641218
19,0	5 000	RPT641219
20,0	5 000	RPT641220
21,0	5 000	RPT641221
22,0	5 000	RPT641222
23,0	5 000	RPT641223
24,0	5 000	RPT641224
25,0	5 000	RPT641225
26,0	5 000	RPT641226
27,0	5 000	RPT641227
28,0	5 000	RPT641228
29,0	5 000	RPT641229
30,0	5 000	RPT641230

d	D	R	L	Unit of sale	Part N°
6,4	15,0	7,5	3,0	5 000	RPT64153
6,4	15,0	7,5	4,0	5 000	RPT64154
6,4	15,0	7,5	5,0	5 000	RPT64155
6,4	15,0	7,5	6,0	5 000	RPT64156
6,4	15,0	7,5	7,0	5 000	RPT64157
6,4	15,0	7,5	8,0	5 000	RPT64158
6,4	15,0	7,5	9,0	5 000	RPT64159
6,4	15,0	7,5	10,0	5 000	RPT641510
6,4	15,0	7,5	11,0	5 000	RPT641511
6,4	15,0	7,5	12,0	5 000	RPT641512
6,4	15,0	7,5	13,0	5 000	RPT641513
6,4	15,0	7,5	14,0	5 000	RPT641514
6,4	15,0	7,5	15,0	5 000	RPT641515
6,4	15,0	7,5	16,0	5 000	RPT641516
6,4	15,0	7,5	17,0	5 000	RPT641517
6,4	15,0	7,5	18,0	5 000	RPT641518
6,4	15,0	7,5	19,0	5 000	RPT641519
6,4	15,0	7,5	20,0	5 000	RPT641520
6,4	15,0	7,5	21,0	5 000	RPT641521
6,4	15,0	7,5	22,0	5 000	RPT641522
6,4	15,0	7,5	23,0	5 000	RPT641523
6,4	15,0	7,5	24,0	5 000	RPT641524
6,4	15,0	7,5	25,0	5 000	RPT641525
6,4	15,0	7,5	26,0	5 000	RPT641526
6,4	15,0	7,5	27,0	5 000	RPT641527
6,4	15,0	7,5	28,0	5 000	RPT641528
6,4	15,0	7,5	29,0	5 000	RPT641529
6,4	15,0	7,5	30,0	5 000	RPT641530

→ Continued next page.



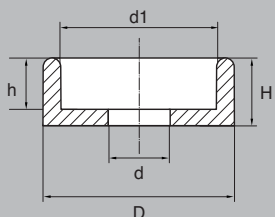
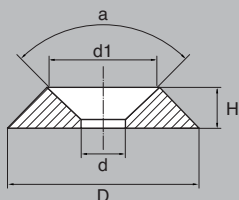
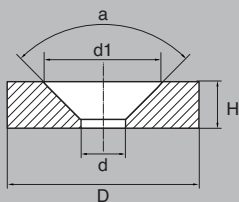




L	Unit of sale	Part N°	d	D	R	L	Unit of sale	Part N°
3,0	5 000	RPT84203	8,4	25,0	14,0	3,0	5 000	RPT84253
4,0	5 000	RPT84204	8,4	25,0	14,0	4,0	5 000	RPT84254
5,0	5 000	RPT84205	8,4	25,0	14,0	5,0	5 000	RPT84255
6,0	5 000	RPT84206	8,4	25,0	14,0	6,0	5 000	RPT84256
7,0	5 000	RPT84207	8,4	25,0	14,0	7,0	5 000	RPT84257
8,0	5 000	RPT84208	8,4	25,0	14,0	8,0	5 000	RPT84258
9,0	5 000	RPT84209	8,4	25,0	14,0	9,0	5 000	RPT84259
10,0	5 000	RPT842010	8,4	25,0	14,0	10,0	5 000	RPT842510
11,0	5 000	RPT842011	8,4	25,0	14,0	11,0	5 000	RPT842511
12,0	5 000	RPT842012	8,4	25,0	14,0	12,0	5 000	RPT842512
13,0	5 000	RPT842013	8,4	25,0	14,0	13,0	5 000	RPT842513
14,0	5 000	RPT842014	8,4	25,0	14,0	14,0	5 000	RPT842514
15,0	5 000	RPT842015	8,4	25,0	14,0	15,0	5 000	RPT842515
16,0	5 000	RPT842016	8,4	25,0	14,0	16,0	5 000	RPT842516
17,0	5 000	RPT842017	8,4	25,0	14,0	17,0	5 000	RPT842517
18,0	5 000	RPT842018	8,4	25,0	14,0	18,0	5 000	RPT842518
19,0	5 000	RPT842019	8,4	25,0	14,0	19,0	5 000	RPT842519
20,0	5 000	RPT842020	8,4	25,0	14,0	20,0	5 000	RPT842520
21,0	5 000	RPT842021	8,4	25,0	14,0	21,0	5 000	RPT842521
22,0	5 000	RPT842022	8,4	25,0	14,0	22,0	5 000	RPT842522
23,0	5 000	RPT842023	8,4	25,0	14,0	23,0	5 000	RPT842523
24,0	5 000	RPT842024	8,4	25,0	14,0	24,0	5 000	RPT842524
25,0	5 000	RPT842025	8,4	25,0	14,0	25,0	5 000	RPT842525
26,0	5 000	RPT842026	8,4	25,0	14,0	26,0	5 000	RPT842526
27,0	5 000	RPT842027	8,4	25,0	14,0	27,0	5 000	RPT842527
28,0	5 000	RPT842028	8,4	25,0	14,0	28,0	5 000	RPT842528
29,0	5 000	RPT842029	8,4	25,0	14,0	29,0	5 000	RPT842529
30,0	5 000	RPT842030	8,4	25,0	14,0	30,0	5 000	RPT842530



# WASHERS > Metric finishing washers



For screw	d	d1	D	H	a	Unit of sale	Part N°
M3	3,2	6,0	8,4	2,2	90°	1 000	RCC3
M4	4,3	8,0	10,5	2,8	90°	1 000	RCC4
M5	5,2	9,8	12,5	3,3	90°	1 000	RCC5
M6	6,2	11,5	15,0	4,1	90°	1 000	RCC6
M8	8,2	16,0	20,0	5,0	90°	1 000	RCC8

For screw	d	d1	D	H	a	Unit of sale	Part N°
M3	3,0	6,5	9,2	1,9	90°	1 000	RCUV3A
M4	4,3	8,0	11,9	3,0	90°	1 000	RCUV4A
M5	5,3	9,8	15,3	3,5	90°	1 000	RCUV5A
M6	6,3	11,7	17,0	4,5	90°	1 000	RCUV6A
M8	8,0	14,3	22,3	5,9	90°	1 000	RCUV8A

For screw	d	d1	D	H	h	Unit of sale	Part N°
M3	3,0	6,0	8,5	2,2	1,2	1 000	STB20-2-3
M4	4,3	8,0	10,5	2,8	1,7	1 000	STB20-2-4
M5	5,3	10,0	12,7	3,4	2,2	1 000	STB20-2-5
M6	6,4	12,3	13,9	3,3	2,3	1 000	STB20-2-6
M6	6,5	11,9	15,0	4,0	2,6	1 000	STB20-2-6F
M8	8,4	16,0	20,0	5,0	3,5	1 000	STB20-2-8

## MATERIALS - COLOURS

### RCC

#### STANDARD :

- White Nylon / Black Nylon.

#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### RCUV

#### STANDARD :

- Natural Nylon / black Nylon.

#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

### STB20-2...

#### STANDARD :

- White Nylon / Black Nylon.

#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

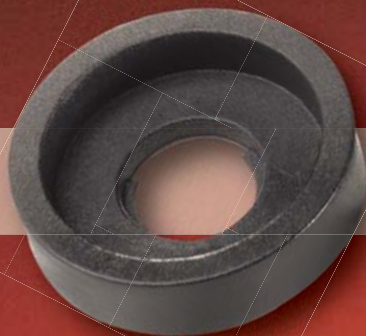
Metric finishing washer **RCC**



Metric finishing washer **RCUV**



Metric finishing washer **STB20 - 2...**



RCC white



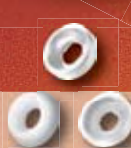
RCUV black



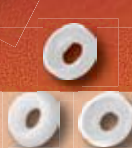
STB 202 white



PP



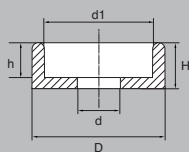
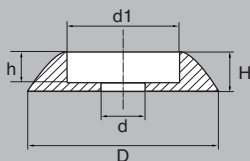
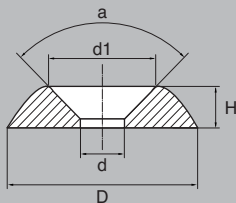
POM



Nylon glass filled



# WASHERS > Metric finishing washers



For screw	d	d1	D	H	a	Unit of sale	Part N°
M3	3,2	7,0	14,0	2,9	90°	1 000	STB20-3-3
M4	4,3	9,0	16,0	3,7	90°	1 000	STB20-3-4
M5	5,2	11,0	18,0	3,8	90°	1 000	STB20-3-5
M6	6,4	13,0	22,0	4,5	90°	1 000	STB20-3-6

For screw	d	d1	D	H	h	Unit of sale	Part N°
M3	3,2	5,5	14,0	2,8	1,7	1 000	STB20-4-3
M4	4,3	7,0	16,0	3,5	2,3	1 000	STB20-4-4
M5	5,3	8,5	18,0	4,0	2,7	1 000	STB20-4-5
M6	6,4	10,0	22,0	4,9	3,5	1 000	STB20-4-6

For screw	d	d1	D	H	h	Unit of sale	Part N°
M3	3,2	5,5	6,5	2,0	1,1	1 000	STB20-5-3
M4	4,3	7,0	8,5	2,2	1,2	1 000	STB20-5-4
M5	5,3	8,5	10,5	2,8	1,6	1 000	STB20-5-5
M6	6,4	10,0	12,7	3,4	2,1	1 000	STB20-5-6
M8	8,4	13,0	15,0	4,0	2,6	1 000	STB20-5-8

## MATERIALS - COLOURS

### STB20-3...

#### STANDARD :

- White Nylon / Black Nylon.

#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart, page 510 / 511.

### STB20-4...

#### STANDARD :

- White Nylon / Black Nylon.

#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart, page 510 / 511.

### STB20-5...

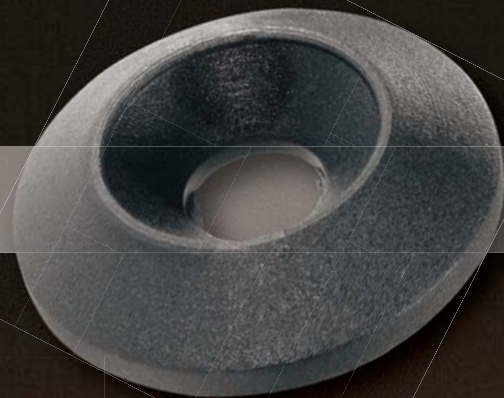
#### STANDARD :

- White Nylon / Black Nylon.

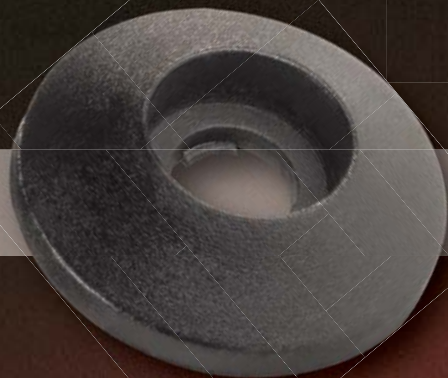
#### ON REQUEST :

- PE / PP / POM / Nylon glass filled.  
Minimum quantity on request.
- Colours : see RAL colour chart, page 510 / 511.

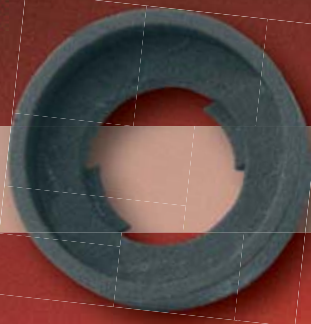
Metric finishing washer **STB20 - 3...** >>



<< Metric finishing washer **STB20 - 4...**



Metric finishing washer **STB20 - 5...** >>



STB 20-3, white



STB 20-4, white



STB 20-5, white



Natural POM



Nylon glass filled

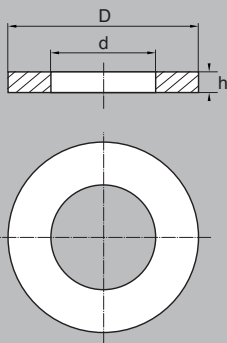


Black PE





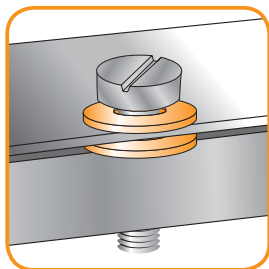
# WASHERS > Flat washers



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For further information, please indicate the 3 dimensions: d x D x h.

Unit of sale :  
 1000 pieces = no asterisk.  
 2000 pieces = \*  
 5000 pieces = \*\*



d	D	h
1,1	x 2,5	x 0,3
1,3	x 3,0	x 0,3**
1,5	x 3,0	x 0,3
1,8	x 4,0	x 0,3**
1,8	x 4,5	x 0,3
1,9	x 4,0	x 0,3
1,9	x 5,0	x 0,3

2,2	x 4,5	x 0,5
2,2	x 5,0	x 0,3
2,2	x 5,0	x 0,5
2,5	x 7,0	x 2,5
2,5	x 8,0	x 1,0
2,5	x 10,0	x 1,0
2,6	x 5,0	x 0,5
2,7	x 5,5	x 0,5
2,7	x 6,5	x 0,5
2,7	x 6,5	x 1,0
2,7	x 8,0	x 0,8
2,8	x 7,0	x 0,5
2,8	x 7,0	x 1,0

2,9	x 7,0	x 1,0
2,9	x 8,0	x 2,5**
3,0	x 13,0	x 0,5
3,0	x 13,0	x 1,0
3,2	x 7,0	x 0,2
3,2	x 8,0	x 0,8
3,2	x 8,0	x 1,0
3,2	x 8,0	x 1,5
3,2	x 9,0	x 1,0
3,2	x 9,0	x 1,5
3,2	x 10,0	x 0,5
3,2	x 10,0	x 1,0

3,2	x 12,0	x 0,5
3,2	x 15,0	x 1,0
3,6	x 6,0	x 0,5
3,6	x 6,0	x 1,0
3,6	x 6,0	x 2,0
3,6	x 8,0	x 2,5**
3,6	x 14,0	x 1,0
3,7	x 8,0	x 0,5**
3,7	x 12,0	x 0,8
3,7	x 12,0	x 1,0**
3,7	x 12,0	x 1,5
3,9	x 12,0	x 1,0

4,0	x 7,0	x 1,5
4,0	x 7,5	x 1,0
4,0	x 8,0	x 0,8
4,0	x 8,0	x 1,0
4,0	x 8,0	x 1,5
4,0	x 10,0	x 1,0**
4,0	x 10,0	x 2,0
4,0	x 12,0	x 1,5**
4,2	x 8,0	x 1,0
4,2	x 8,0	x 1,2
4,2	x 10,0	x 1,0
4,3	x 9,0	x 0,8
4,3	x 9,0	x 1,0
4,3	x 9,0	x 1,5
4,3	x 10,0	x 1,2
4,3	x 12,0	x 1,5
4,3	x 18,0	x 1,5
4,5	x 10,0	x 1,0
4,5	x 15,0	x 1,5
4,6	x 10,0	x 2,0
4,7	x 15,0	x 1,5**
4,7	x 10,0	x 1,5

4,8	x	
4,8	x	
4,8	x	
4,8	x	
5,0	x	
5,0	x	
5,0	x	
5,0	x	
5,1	x	
5,2	x	
5,2	x	
5,2	x	
5,3	x	
5,3	x	
5,3	x	
5,3	x	
5,5	x	
5,5	x	
5,8	x	
5,8	x	
5,8	x	
6,0	x	
6,0	x	
6,0	x	
6,0	x	
6,0	x	
6,1	x	
6,5	x	

→ Continued next page.

## MATERIALS - COLOURS

### STANDARD :

- Natural Nylon.

### ON REQUEST :

- Black Nylon / PE / PP / PS / POM / PTFE...  
 Other materials : see chapter "Stamped parts" page 492.  
 Minimum quantity on request.
- Colours : see RAL colour chart page 510 / 511.

D		h
10,0	x	0,8
10,0	x	1,0
12,0	x	0,8**
12,0	x	1,0**

10,0	x	1,0
10,0	x	1,5
12,0	x	1,0**
12,0	x	1,5**
18,0	x	1,0
18,0	x	1,5
11,0	x	2,5
9,0	x	1,0
12,0	x	1,2
13,0	x	1,0
10,0	x	1,0
11,0	x	1,0
11,0	x	1,5
15,0	x	1,0
15,0	x	1,5
40,0	x	1,5
9,0	x	1,0
12,0	x	1,0
12,0	x	1,5

11,0	x	1,0
12,0	x	1,0
18,0	x	0,5
18,0	x	1,0
18,0	x	0,5
30,0	x	0,5
30,0	x	1,0**
14,5	x	1,5**
14,0	x	1,5**



Black Nylon



PE



PP



PS



POM



PTFE ...



# WASHERS > Flat washers

d	D	h
6,1	x 16,0	x 1,0
6,1	x 16,0	x 1,5
6,1	x 21,0	x 1,0
6,1	x 40,0	x 1,0
6,2	x 12,0	x 1,0
6,2	x 15,0	x 1,0
6,2	x 15,0	x 1,5
6,3	x 34,6	x 2,4**
6,4	x 11,0	x 1,0
6,4	x 11,0	x 1,5
6,4	x 12,0	x 0,5
6,4	x 12,0	x 1,0
6,4	x 12,0	x 1,5**
6,4	x 12,5	x 1,6
6,4	x 18,0	x 1,0
6,4	x 18,0	x 1,5**
6,4	x 18,0	x 2,0
6,4	x 20,0	x 1,0
6,4	x 20,0	x 1,5
6,4	x 24,0	x 1,0
6,4	x 24,0	x 1,5
6,5	x 18,0	x 2,0**
6,5	x 18,0	x 3,0**
6,5	x 20,0	x 1,0**
6,5	x 20,0	x 1,5**
6,5	x 25,0	x 2,0

7,0	x 11,0	x 0,5
7,0	x 11,0	x 1,0
7,0	x 16,0	x 1,0
7,0	x 21,0	x 1,0
7,0	x 21,0	x 1,5
7,0	x 25,0	x 1,0**
7,0	x 25,0	x 1,5**
7,5	x 13,0	x 0,5
7,7	x 12,0	x 2,0

d	D	h
8,0	x 10,0	x 0,5
8,0	x 10,0	x 1,0
8,0	x 12,0	x 0,5
8,0	x 12,0	x 1,0
8,0	x 12,0	x 1,5
8,0	x 14,0	x 0,5
8,0	x 14,0	x 1,0
8,0	x 20,0	x 1,0
8,0	x 20,0	x 2,0**
8,0	x 30,0	x 0,5
8,0	x 30,0	x 1,0
8,2	x 16,0	x 1,0
8,2	x 17,0	x 1,0
8,3	x 24,0	x 2,0**
8,3	x 30,0	x 1,0**
8,4	x 14,0	x 1,5
8,4	x 15,0	x 1,0
8,4	x 15,0	x 1,5
8,4	x 17,0	x 1,0
8,4	x 17,0	x 1,5**
8,4	x 17,0	x 2,0
8,4	x 17,0	x 3,0
8,4	x 20,0	x 2,0
8,4	x 20,0	x 3,0
8,4	x 25,0	x 1,5
8,4	x 25,0	x 2,0
8,4	x 25,0	x 2,5
8,5	x 30,0	x 1,0

9,0	x 16,0	x 0,5
9,0	x 16,0	x 1,0
9,0	x 16,0	x 1,5
9,5	x 20,0	x 1,5
9,5	x 21,0	x 2,0
9,8	x 15,0	x 1,0
9,8	x 15,0	x 1,5
9,8	x 18,0	x 1,0**

d	D	h
10,0	x 12,0	x 1,0
10,0	x 13,0	x 1,0
10,0	x 16,0	x 1,0
10,0	x 16,0	x 1,5
10,0	x 16,0	x 2,0
10,0	x 18,0	x 1,0
10,0	x 18,0	x 1,5
10,0	x 21,0	x 1,0
10,1	x 30,0	x 1,5
10,2	x 16,0	x 2,0
10,2	x 17,0	x 1,0
10,2	x 20,0	x 1,0
10,5	x 14,5	x 0,8
10,5	x 15,0	x 1,0
10,5	x 15,0	x 2,0
10,5	x 18,0	x 1,6
10,5	x 21,0	x 1,0
10,5	x 21,0	x 2,0
10,5	x 21,0	x 3,0
10,5	x 21,0	x 4,0
10,5	x 22,0	x 2,5**
10,5	x 22,0	x 4,0**

11,0	x 14,0	x 1,5
11,0	x 14,0	x 2,0
11,0	x 16,0	x 1,0
11,0	x 18,0	x 1,0
11,0	x 30,0	x 1,0
11,0	x 30,0	x 2,0**

12,2	x 16,2	x 1,0
12,2	x 16,2	x 2,5
12,2	x 18,0	x 0,5
12,2	x 18,0	x 1,0
12,2	x 18,0	x 2,0
12,2	x 20,0	x 1,0
12,2	x 24,0	x 1,0
12,2	x 37,0	x 1,0
12,3	x 14,0	x 0,8

d	D	h
12,5	x 17,0	x 1,0**
12,5	x 17,0	x 2,0
12,5	x 20,0	x 1,0
12,5	x 24,0	x 2,0
12,5	x 27,0	x 2,5
12,5	x 34,0	x 3,0
12,5	x 60,0	x 3,0
12,7	x 23,0	x 2,0
12,7	x 35,0	x 1,5

13,0	x 19,0	x 1,0
13,0	x 19,0	x 1,5
13,0	x 20,0	x 1,0
13,0	x 20,0	x 2,0
13,0	x 24,0	x 2,0
13,0	x 24,0	x 2,5
13,0	x 24,0	x 3,0
13,0	x 28,0	x 1,0
13,0	x 32,0	x 1,0
13,0	x 40,0	x 2,0
13,0	x 40,0	x 3,0
13,2	x 20,0	x 3,0

14,0	x 18,0	x 0,5
14,0	x 18,0	x 0,8
14,0	x 18,0	x 1,0
14,0	x 18,0	x 1,5
14,0	x 20,0	x 1,0
14,0	x 24,0	x 1,0
14,0	x 24,0	x 1,5
14,0	x 25,0	x 1,0
14,5	x 17,0	x 1,0*
14,5	x 20,0	x 3,0
14,5	x 21,0	x 1,0
14,5	x 21,0	x 2,0
14,5	x 25,0	x 1,0
14,5	x 25,0	x 3,0
14,5	x 25,0	x 4,0
14,5	x 30,0	x 2,5
14,8	x 45,0	x 2,0*

d	D	h
15,0	x 18,0	x 1,0
15,0	x 18,0	x 2,0*
15,0	x 18,0	x 2,5*
15,0	x 25,0	x 1,0
15,0	x 25,0	x 2,0
15,0	x 28,0	x 1,0
15,0	x 28,0	x 2,0
15,0	x 30,0	x 3,0
15,1	x 28,0	x 2,5*

16,0	x 20,0	x 0,8
16,0	x 21,0	x 0,5
16,0	x 21,0	x 1,0
16,0	x 21,0	x 2,0
16,0	x 25,0	x 0,5
16,0	x 25,0	x 1,0
16,0	x 25,4	x 0,8*
16,2	x 24,0	x 1,0
16,5	x 32,0	x 1,0
16,5	x 32,0	x 3,0
16,5	x 35,0	x 1,0
16,5	x 54,0	x 1,0
16,8	x 19,5	x 1,5*

17,0	x 21,0	x 1,0
17,0	x 24,0	x 2,0
17,0	x 30,0	x 3,0
17,0	x 40,0	x 1,0*
17,0	x 40,0	x 2,0
17,0	x 50,0	x 3,0
17,0	x 60,0	x 2,0*
17,5	x 20,0	x 2,0
17,5	x 32,0	x 1,0*
17,5	x 32,0	x 1,5

d	D	h
18,0	x 22,0	x 0,5
18,0	x 22,0	x 1,5
18,0	x 24,0	x 1,0
18,0	x 24,0	x 2,0
18,0	x 30,0	x 0,5
18,0	x 30,0	x 1,0
18,0	x 38,0	x 1,0
18,5	x 30,0	x 1,5
18,5	x 36,0	x 3,0
18,8	x 42,0	x 0,5*

19,0	x 23,0	x 0,5*
19,0	x 23,0	x 1,0
19,0	x 23,0	x 1,5*
19,0	x 40,0	x 0,5*
19,0	x 40,0	x 1,0*

20,0	x 28,0	x 0,5
20,0	x 28,0	x 1,0
20,0	x 30,0	x 1,0
20,0	x 30,0	x 1,5
20,0	x 36,0	x 3,5*
20,0	x 40,0	x 1,0*
20,0	x 40,0	x 1,5*
20,0	x 45,0	x 1,0
20,0	x 45,0	x 2,0*
20,5	x 33,0	x 1,0
20,5	x 33,0	x 2,0
20,5	x 40,0	x 1,2*
20,5	x 40,0	x 3,0
20,5	x 50,0	x 1,0*

21,0	x 24,0	x 0,5*
21,0	x 24,5	x 1,5
21,0	x 26,0	x 1,0*
21,0	x 26,0	x 1,5
21,0	x 30,0	x 1,0
21,0	x 30,0	x 1,5
21,0	x 45,0	x 1,0*
21,0	x 45,0	x 1,5



# WASHERS > Flat washers

d	D	h
22,0	x 25,8	x 1,0
22,0	x 25,8	x 1,5
22,0	x 25,8	x 2,0
22,0	x 28,5	x 1,5
22,0	x 36,0	x 2,0
22,5	x 28,0	x 1,0
22,5	x 28,0	x 1,5
22,5	x 31,5	x 3,0
22,5	x 32,0	x 1,0
22,5	x 32,0	x 1,5
22,5	x 33,5	x 3,0
22,5	x 33,5	x 4,0

23,0	x 28,0	x 1,0*
23,0	x 30,0	x 1,0
23,0	x 30,0	x 1,5*
23,0	x 39,0	x 3,0
23,0	x 40,0	x 2,5*

24,0	x 28,8	x 2,0
24,0	x 35,0	x 1,0*
24,0	x 35,0	x 1,5
24,5	x 31,0	x 2,0*
24,5	x 45,0	x 1,0*
24,5	x 45,0	x 1,2
24,5	x 45,0	x 1,5*

25,0	x 40,0	x 1,0
25,0	x 40,0	x 1,5
25,0	x 45,0	x 1,0*
25,0	x 45,0	x 1,5*
25,0	x 45,0	x 3,5*
25,0	x 50,0	x 1,0*
25,0	x 50,0	x 1,5
25,0	x 36,0	x 1,5

d	D	h
26,0	x 30,4	x 2,5
26,0	x 32,0	x 1,0
26,0	x 32,0	x 1,5*
26,0	x 49,0	x 1,0*
26,2	x 29,0	x 1,0*
26,2	x 29,0	x 1,5
26,3	x 37,0	x 2,0
26,5	x 29,5	x 1,5*
26,5	x 32,0	x 1,0
26,5	x 32,0	x 1,5
26,5	x 45,0	x 1,0

27,0	x 32,0	x 1,0*
27,0	x 33,0	x 0,5*
27,0	x 33,0	x 1,0
27,0	x 37,0	x 2,0
27,0	x 70,0	x 3,0
27,0	x 70,0	x 5,0
27,5	x 33,0	x 1,5*

28,0	x 40,0	x 6,0*
28,0	x 40,0	x 9,0
28,5	x 52,0	x 1,0*
29,5	x 52,0	x 1,5*

29,0	x 33,8	x 2,0
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30,0	x 36,0	x 1,0
30,0	x 36,0	x 1,5*
30,0	x 46,0	x 1,0
30,0	x 46,0	x 1,5
30,0	x 66,0	x 4,0

d	D	h
30,0	x 70,0	x 1,0*
30,0	x 70,0	x 1,5*
30,5	x 35,0	x 1,0*
30,5	x 35,0	x 2,0*
31,0	x 36,0	x 1,0
31,0	x 36,0	x 1,5*
31,0	x 36,0	x 2,0
31,0	x 45,0	x 1,0*
31,0	x 44,5	x 1,5
31,2	x 37,0	x 1,0*

32,0	x 44,0	x 1,0*
32,0	x 56,0	x 3,0*
32,5	x 38,0	x 2,0

33,0	x 39,0	x 1,0
33,0	x 39,0	x 2,0
33,0	x 43,0	x 1,0*
33,2	x 39,0	x 2,5

34,2	x 45,0	x 1,0*
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35,0	x 40,0	x 1,0*
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40,0	x 46,0	x 1,0
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41,5	x 64,0	x 1,0*
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42,0	x 49,0	x 1,0*
------	--------	--------

45,5	x 53,0	x 2,0
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50,0	x 61,0	x 1,0*
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56,2	x 62,0	x 1,0*
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Black Nylon



PE



PP



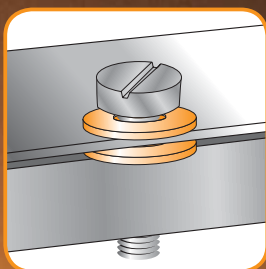
PS



POM



PTFE



Other dimensions on request.  
Contact us at : [bulte@bulte.com](mailto:bulte@bulte.com)

Other materials and water cutting: see chapter  
"stamped parts" page 492.

For further information, please indicate  
the 3 dimensions : d x D x h.

Unit of sale :  
1000 pieces = no asterisk.  
2000 pieces = \*  
5000 pieces = \*\*

