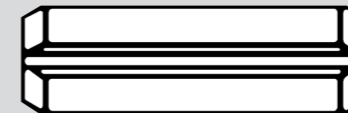




**krumm&andré**



**PRODUKTKATALOG**



<b>Schwerspannstifte / Dowel pins</b> .....	3-9
Schwerspannstifte ISO 8752 brüniert / Dowel pins ISO 8752 self finish	
<b>Kugellager-Ausgleichscheiben / Ball bearing shims</b> .....	10-13
Kugellager-Ausgleichscheiben / Ball bearing shims	
<b>Nutmuttern / Nuts for hook spanners</b> .....	14
Nutmuttern DIN 981 / Nuts for hook spanners DIN 981	
<b>Sicherungsbleche / locking washers</b> .....	15
Sicherungsbleche DIN 5406 / locking washers DIN 5406	
<b>Schnellbefestiger / Quick-lock-washers</b> .....	16-23
RPT / RPT - Round push on fixes	
RPCO-Schnellbefestiger / RPCO - Quicklock washer (with clamp)	
RPC-Schnellbefestiger / RPC - Quicklock washer dome capped	
RPC-Schnellbefestiger / RPC - Quicklock washer dome capped	
RPCOR / RPCOR - reversed quicklock washer (with clamp)	
RPCOT/RPCT - Montagewerkzeug / RPCOT/RPCT - Quicklock washer assembly tool	
<b>Passscheiben / Shimwashers</b> .....	24-27
Passscheiben nach DIN 988 rostfrei / Shimwashers acc. DIN 988 stainless steel	
<b>Sonderscheiben / Special washers</b> .....	28-43
Sonderscheiben nach DIN 988 ps / special washers acc. DIN 988 ps	
Sonderscheiben nach DIN 988 ss / Special washers acc. DIN 988 ss	

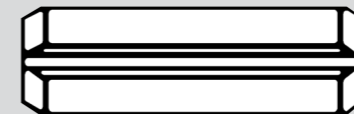
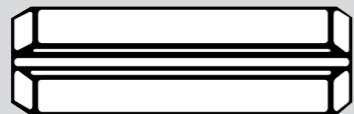


**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT  
DOWEL PINS ISO 8752 SELF FINISH**



Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
46004015	1,5	4	200
46005015	1,5	5	200
46006015	1,5	6	1.000
46008015	1,5	8	1.000
46010015	1,5	10	1.000
46012015	1,5	12	1.000
46014015	1,5	14	200
46016015	1,5	16	200
46018015	1,5	18	200
46020015	1,5	20	200
46022015	1,5	22	1.000
46024015	1,5	24	1.000
4600402	2,0	4	200
4600502	2,0	5	1.000
4600602	2,0	6	1.000
4600702	2,0	7	1.000
4600802	2,0	8	1.000
4601002	2,0	10	1.000
4601102	2,0	11	5.000
4601202	2,0	12	1.000
4601402	2,0	14	1.000
4601602	2,0	16	1.000

**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT  
DOWEL PINS ISO 8752 SELF FINISH**



Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4601802	2	18	200
4602002	2	20	1.000
4602202	2	22	200
4602402	2	24	1.000
4602502	2	25	1.000
4602602	2	26	1.000
4602802	2	28	200
4603002	2	30	1.000
46004025	2,5	4	200
46005025	2,5	5	200
46006025	2,5	6	200
46008025	2,5	8	200
46010025	2,5	10	1.000
46012025	2,5	12	1.000
46014025	2,5	14	200
46016025	2,5	16	1.000
46018025	2,5	18	200
46020025	2,5	20	1.000
46022025	2,5	22	200
46024025	2,5	24	200
46025025	2,5	25	1.000
46026025	2,5	26	200





**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
46028025	2,5	28	200
46030025	2,5	30	200
46032025	2,5	32	1.000
46034025	2,5	34	1.000
46035025	2,5	35	1.000
46036025	2,5	36	1.000
46040025	2,5	40	1.000
4600403	3,0	4	200
4600503	3,0	5	1.000
4600603	3,0	6	200
4600803	3,0	8	1.000
4601003	3,0	10	1.000
4601203	3,0	12	1.000
4601403	3,0	14	1.000
4601503	3,0	15	1.000
4601603	3,0	16	1.000
4601803	3,0	18	1.000
4602003	3,0	20	1.000
4602203	3,0	22	200
4602403	3,0	24	1.000
4602503	3,0	25	1.000
4602603	3,0	26	1.000
4602803	3,0	28	1.000
4603003	3,0	30	1.000
4603203	3,0	32	1.000
4603403	3,0	34	1.000
4603503	3,0	35	1.000
4603603	3,0	36	100
4604003	3,0	40	1.000
4605003	3,0	50	100
46006035	3,5	6	200
46008035	3,5	8	200



**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
46010035	3,5	10	200
46012035	3,5	12	200
46014035	3,5	14	200
46015035	3,5	15	1.000
46016035	3,5	16	200
46018035	3,5	18	200
46020035	3,5	20	200
46022035	3,5	22	200
46024035	3,5	24	200
46025035	3,5	25	1.000
46026035	3,5	26	200
46028035	3,5	28	200
46030035	3,5	30	200
46032035	3,5	32	100
46034035	3,5	34	1.000
46036035	3,5	36	100
46040035	3,5	40	100
46050035	3,5	50	1.000
4600504	4,0	5	200
4600604	4,0	6	500
4600804	4,0	8	500
4601004	4,0	10	500
4601204	4,0	12	500
4601404	4,0	14	500
4601504	4,0	15	500
4601604	4,0	16	500
4601804	4,0	18	500
4602004	4,0	20	500
4602204	4,0	22	500
4602404	4,0	24	500
4602504	4,0	25	500
4602604	4,0	26	500

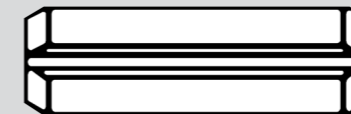
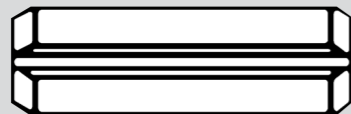
**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4602804	4,0	28	500
4603004	4,0	30	500
4603204	4,0	32	500
4603404	4,0	34	500
4603504	4,0	35	500
4603604	4,0	36	500
4603804	4,0	38	500
4604004	4,0	40	500
4604204	4,0	42	500
4604504	4,0	45	100
4605004	4,0	50	500
4606004	4,0	60	100
4600805	5,0	8	500
4601005	5,0	10	100
4601205	5,0	12	100
4601405	5,0	14	100
4601505	5,0	15	500
4601605	5,0	16	500
4601805	5,0	18	100
4602005	5,0	20	500
4602205	5,0	22	100
4602405	5,0	24	500
4602505	5,0	25	500
4602605	5,0	26	500
4602805	5,0	28	500
4603005	5,0	30	500
4603205	5,0	32	500
4603405	5,0	34	500
4603505	5,0	35	500
4603605	5,0	36	500
4603805	5,0	38	500
4604005	5,0	40	500



**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4604505	5,0	45	500
4604605	5,0	46	500
4605005	5,0	50	250
4605505	5,0	55	100
4606005	5,0	60	250
4606505	5,0	65	100
4607005	5,0	70	250
4607505	5,0	75	100
4608005	5,0	80	100
4601006	6,0	10	100
4601206	6,0	12	100
4601406	6,0	14	500
4601506	6,0	15	500
4601606	6,0	16	500
4601806	6,0	18	100
4602006	6,0	20	500
4602206	6,0	22	500
4602406	6,0	24	500
4602506	6,0	25	1.000
4602606	6,0	26	100
4602806	6,0	28	100
4603006	6,0	30	500
4603206	6,0	32	500
4603406	6,0	34	500
4603506	6,0	35	600
4603606	6,0	36	500
4604006	6,0	40	500
4604506	6,0	45	100
4605006	6,0	50	250
4605506	6,0	55	100
4606006	6,0	60	250
4606506	6,0	65	100









**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4607006	6,0	70	100
4607506	6,0	75	100
4608006	6,0	80	250
4608506	6,0	85	100
4609006	6,0	90	50
4609506	6,0	95	50
4610006	6,0	100	50
4601008	8,0	10	100
4601208	8,0	12	100
4601408	8,0	14	100
4601608	8,0	16	100
4601808	8,0	18	100
4602008	8,0	20	500
4602208	8,0	22	100
4602408	8,0	24	500
4602508	8,0	25	500
4602608	8,0	26	100
4602808	8,0	28	100
4603008	8,0	30	250
4603208	8,0	32	250
4603408	8,0	34	500
4603508	8,0	35	300
4603608	8,0	36	250
4604008	8,0	40	500
4604508	8,0	45	500
4605008	8,0	50	250
4605508	8,0	55	100
4606008	8,0	60	250
4606508	8,0	65	50
4607008	8,0	70	50
4607508	8,0	75	50



**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

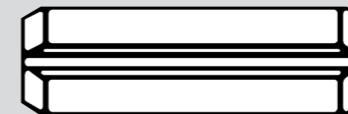
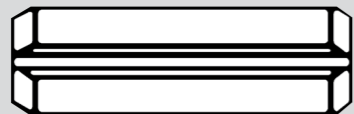
Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4608008	8,0	80	250
4608508	8,0	85	50
4609008	8,0	90	50
4609508	8,0	95	50
4610008	8,0	100	50
4601210	10	12	100
4601410	10	14	800
4601610	10	16	100
4601810	10	18	500
4602010	10	20	100
4602210	10	22	100
4602410	10	24	100
4602610	10	26	500
4602810	10	28	100
4603010	10	30	100
4603210	10	32	100
4603510	10	35	100
4603610	10	36	250
4603810	10	38	250
4604010	10	40	250
4604210	10	42	1.000
4604510	10	45	250
4605010	10	50	250
4605510	10	55	250
4606010	10	60	200
4606510	10	65	50
4607010	10	70	100
4607510	10	75	50
4608010	10	80	100
4608510	10	85	50
4609010	10	90	50

**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**



Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4609510	10	95	50
4610010	10	100	50
4612010	10	120	25
4601412	12	14	25
4601612	12	16	25
4601812	12	18	25
4602012	12	20	25
4602212	12	22	25
4602412	12	24	25
4602512	12	25	1000
4602612	12	26	25
4602812	12	28	25
4603012	12	30	25
4603212	12	32	25
4603612	12	36	25
4604012	12	40	25
4604512	12	45	25
4604812	12	48	150
4605012	12	50	25
4605512	12	55	25
4606012	12	60	25
4606512	12	65	25
4607012	12	70	25
4607512	12	75	25
4608012	12	80	25
4608512	12	85	25
4609012	12	90	25
4609512	12	95	25
4610012	12	100	25
4611012	12	110	50
4612012	12	120	10

**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**



Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4614012	12	140	10
4601013	13	10	25
4601213	13	12	25
4601413	13	14	25
4601613	13	16	25
4601813	13	18	25
4602013	13	20	25
4602213	13	22	25
4602613	13	26	25
4602813	13	28	25
4603013	13	30	25
4603213	13	32	25
4603613	13	36	25
4604013	13	40	25
4604513	13	45	25
4605013	13	50	25
4605513	13	55	25
4606013	13	60	25
4606513	13	65	25
4607013	13	70	25
4607513	13	75	25
4608013	13	80	25
4608513	13	85	25
4609013	13	90	25
4609513	13	95	25
4610013	13	100	10
4612013	13	120	10
4601614	14	16	25
4601814	14	18	25
4602014	14	20	25
4602214	14	22	25





**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4602414	14	24	25
4602614	14	26	25
4602814	14	28	25
4603014	14	30	25
4603614	14	36	25
4604014	14	40	25
4604514	14	45	25
4605014	14	50	25
4605514	14	55	25
4606014	14	60	25
4606514	14	65	50
4607014	14	70	25
4607514	14	75	25
4608014	14	80	25
4608514	14	85	25
4609014	14	90	25
4609514	14	95	10
4610014	14	100	10
4611014	14	110	100
4612014	14	120	10
4601816	16	18	25
4602016	16	20	25
4602216	16	22	25
4602416	16	24	25
4602616	16	26	25
4602816	16	28	25
4603016	16	30	25
4603216	16	32	25
4603516	16	35	100
4603616	16	36	25
4604016	16	40	25

**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

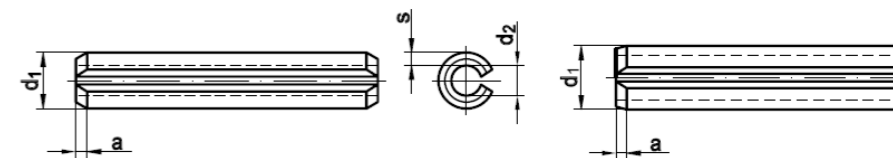
Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4604516	16	45	25
4605016	16	50	25
4605516	16	55	25
4606016	16	60	25
4606516	16	65	25
4607016	16	70	25
4607516	16	75	25
4608016	16	80	25
4608516	16	85	25
4609016	16	90	25
4609516	16	95	10
4610016	16	100	10
4611016	16	110	10
4612016	16	120	10
4616016	16	160	10
4602418	18	24	25
4602618	18	26	25
4603018	18	30	0
4604018	18	40	25
4605018	18	50	25
4606018	18	60	25
4607018	18	70	25
4608018	18	80	25
4609018	18	90	10
4609518	18	95	0
4610018	18	100	10
4611018	18	110	10
4612018	18	120	10
4613018	18	130	10
4602020	20	20	25
4603620	20	36	250

**SCHWERSPANNSTIFTE ISO 8752 BRÜNIERT**  
**DOWEL PINS ISO 8752 SELF FINISH**

Artikel-Nr.	Ø Schaft (mm)	Länge	
Article No.	Ø Shaft (mm)	Length	
4604020	20	40	25
4605020	20	50	25
4606020	20	60	25
4607020	20	70	25
4608020	20	80	25
4609020	20	90	10
4610020	20	100	100
4611020	20	110	100
4612020	20	120	100
4615020	20	150	100

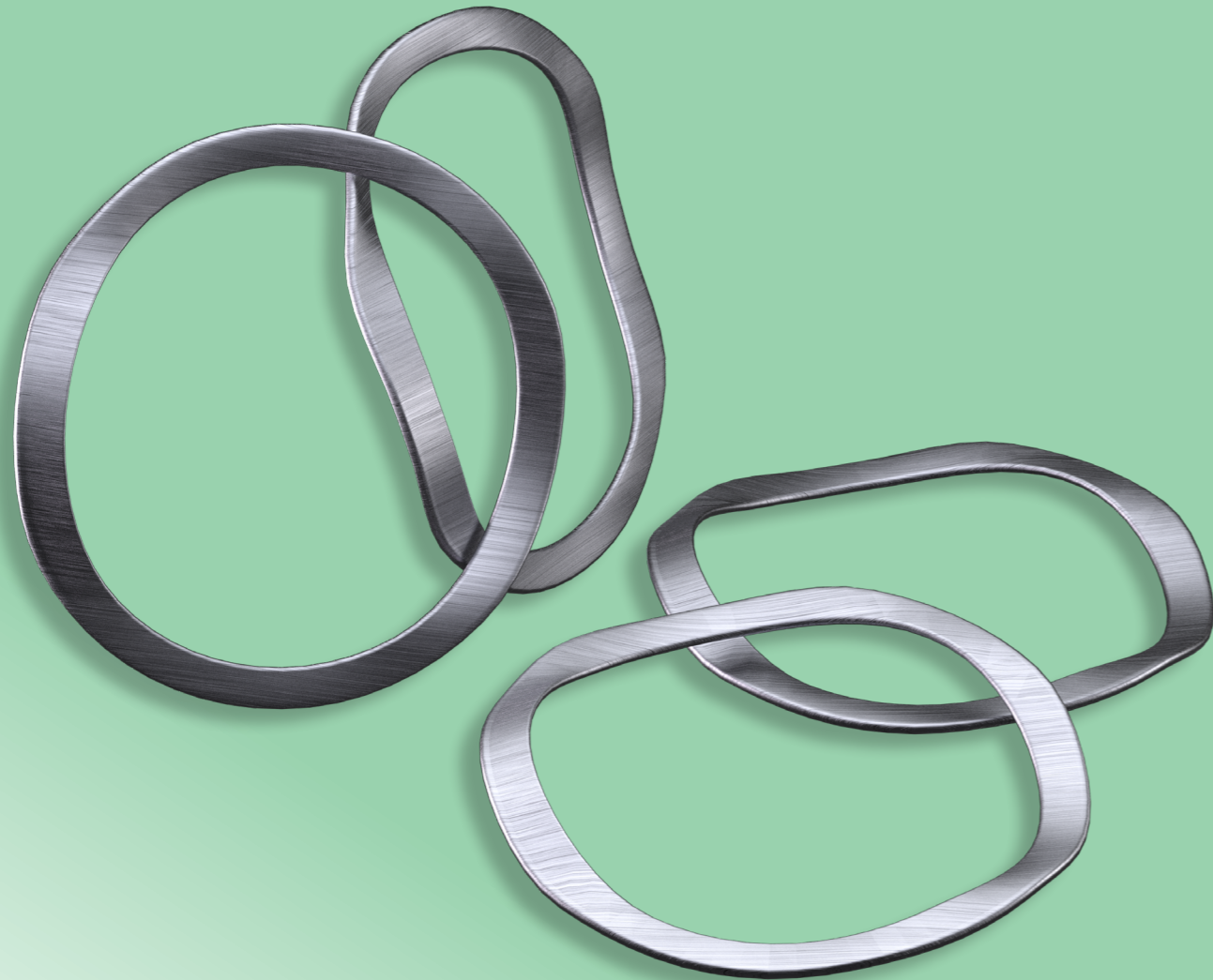
Für geschlitzte Spannstiften (-hülen) mit einem Nennedurchmesser  $d_1 \geq 10$  mm ist, nach Wahl des Lieferanten, auch nur eine Fase zulässig.

Bis zu einer Vickershärte von 440 HV bis 560 HV gehärtet und ausgelassen



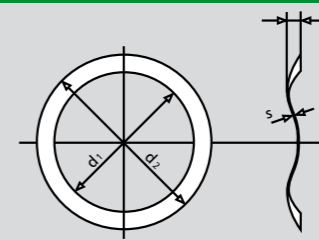
# KUGELLAGER-AUSGLEICHSCHEIBEN

## BALL BEARING SHIMS



### KUGELLAGER-AUSGLEICHSCHEIBE

### BALL BEARING SHIMS



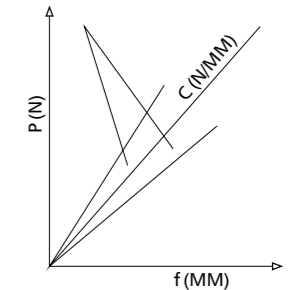
**krumm&andré**



Unter Voraussetzung einer 50 %igen Belastung von P max. darf angenommen werden, dass die Federkennlinie, die das Diagramm zeigt, linear verläuft und die Kraft proportional dem Federweg f ansteigt.  
 P max. ist die Maximalkraft, die aufgewendet werden muss, um Kugellagerausgleichscheiben vollständig flachzudrücken. f max. ist der zurückgelegte Federweg.  
 $f_{max.} = h - s$

Empfohlenes P bei Dauerbetrieb = 50 % P max.

TOLLERANZ  
 PERMISSIBLE VARIATION 20 %

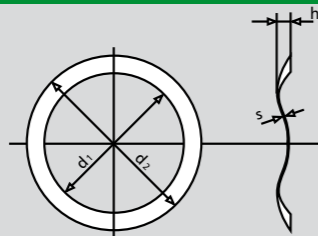


### KUGELLAGER-AUSGLEICHSCHEIBEN

### BALL BEARING SHIMS

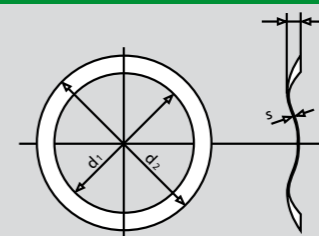
K&A Nr.	d1 (mm)	d2 (mm)	h (mm)	s Richtwert	P max. (N)	C +/-20% (N/mm)
K&A No.	d1 (mm)	d2 (mm)	h (mm)	s Commanded Value	P max. (N)	C +/-20% (N/mm)
9001201	8,2 +/-0,2	12,0 +/-0,2	1,2 +/-0,2	0,10 +/-0,02	4	13
9001415	10,2 +/-0,2	14,1 +/-0,2	1,3 +/-0,2	0,15 +/-0,02	24	21
9001502	10,5 +/-0,2	15,6 +/-0,2	1,7 +/-0,2	0,20 +/-0,02	130	87
9015802	10,5 +/-0,2	15,8 +/-0,2	1,8 +/-0,2	0,20 +/-0,02	130	87
9001503	10,5 +/-0,2	15,8 +/-0,2	1,8 +/-0,2	0,30 +/-0,02	195	130
9091802	13,2 +/-0,2	18,5 +/-0,2	1,6 +/-0,2	0,20 +/-0,02	50	36
9018625	13,2 +/-0,2	18,6 +/-0,2	1,6 +/-0,2	0,25 +/-0,02	50	36
9001802	13,2 +/-0,2	18,8 +/-0,2	1,6 +/-0,2	0,20 +/-0,02	50	36
9092103	14,0 +/-0,2	21,8 +/-0,2	1,6 +/-0,2	0,30 +/-0,02	145	112
9002103	15,0 +/-0,2	21,5 +/-0,2	1,6 +/-0,2	0,30 +/-0,02	145	115
9002102	15,8 +/-0,2	21,8 +/-0,2	1,6 +/-0,2	0,20 +/-0,02	55	39
9002325	17,3 +/-0,2	23,8 +/-0,2	1,5 +/-0,2	0,25 +/-0,02	65	52
9002303	17,3 +/-0,2	23,8 +/-0,2	1,5 +/-0,2	0,30 +/-0,02	105	88
9002306	17,3 +/-0,2	23,8 +/-0,2	1,5 +/-0,2	0,60 +/-0,02	?	?
9002503	19,3 +/-0,2	25,8 +/-0,2	1,6 +/-0,2	0,30 +/-0,02	75	50
9001903	19,3 +/-0,2	25,8 +/-0,2	1,8 +/-0,2	0,30 +/-0,02	75	50
9002527	19,8 +/-0,2	25,2 +/-0,2	2,0 +/-0,2	0,27 +/-0,02	?	?
9082703	21,0 +/-0,2	27,0 +/-0,2	1,6 +/-0,2	0,30 +/-0,02	40	33
9082704	21,0 +/-0,2	27,0 +/-0,2	1,6 +/-0,2	0,40 +/-0,02	85	71
9002903	22,5 +/-0,2	29,7 +/-0,2	1,7 +/-0,2	0,30 +/-0,02	55	39
9002435	24,5 +/-0,2	31,7 +/-0,3	2,3 +/-0,2	0,35 +/-0,02	80	41
9003403	24,5 +/-0,2	34,5 +/-0,2	2,4 +/-0,2	0,30 +/-0,02	?	?

**KUGELLAGERAUSGLEICHSBLECHE**  
**BALL BEARING SHIMS**



**krumm&andré**

**KUGELLAGERAUSGLEICHSBLECHE**  
**BALL BEARING SHIMS**



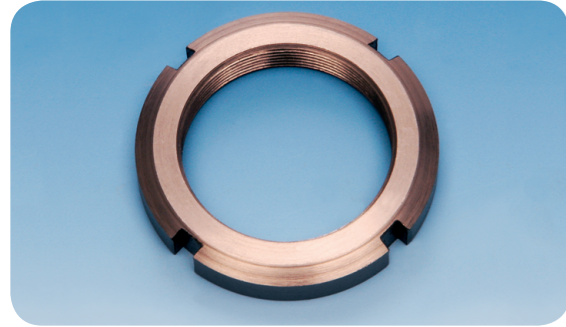
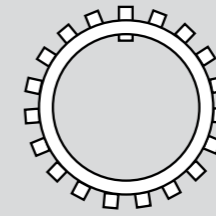
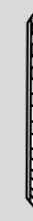
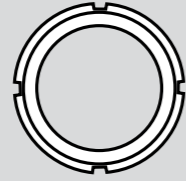
**krumm&andré**

**KUGELLAGER-AUSGLEICHSSCHEIBEN**  
**BALL BEARING SHIMS**

K&A Nr.	d1 (mm)	d2 (mm)	h (mm)	s Richtwert	P max. (N)	C +/-20% (N/mm)
K&A No.	d1 (mm)	d2 (mm)	h (mm)	s Commanded Value	P max. (N)	C +/-20% (N/mm)
9003405	24,5 +/-0,2	34,5 +/-0,3	2,4 +/-0,3	0,50 +/-0,02	625	329
9003104	26,5 +/-0,2	31,7 +/-0,3	2,1 +/-0,2	0,40 +/-0,02	80	47
9073105	26,5 +/-0,2	31,7 +/-0,3	2,4 +/-0,2	0,50 +/-0,02	80	47
9073104	26,5 +/-0,2	31,7 +/-0,3	2,7 +/-0,2	0,40 +/-0,02	?	?
9093405	28,0 +/-0,3	34,5 +/-0,3	2,9 +/-0,2	0,50 +/-0,02	150	63
9083403	28,0 +/-0,3	34,5 +/-0,3	3,0 +/-0,2	0,30 +/-0,02	?	?
9073405	28,0 +/-0,3	34,5 +/-0,3	3,0 +/-0,2	0,50 +/-0,02	150	63
9003404	28,0 +/-0,3	34,5 +/-0,3	3,1 +/-0,2	0,40 +/-0,02	100	37
9004005	30,0 +/-0,3	40,0 +/-0,3	3,0 +/-0,2	0,50 +/-0,02	160	64
9004105	30,0 +/-0,3	41,0 +/-0,3	2,9 +/-0,2	0,50 +/-0,02	155	65
9004106	30,0 +/-0,3	41,0 +/-0,3	2,9 +/-0,2	0,60 +/-0,02	130	69
9003903	33,0 +/-0,3	39,1 +/-0,3	2,8 +/-0,2	0,30 +/-0,02	95	38
9003905	33,0 +/-0,3	39,1 +/-0,3	2,9 +/-0,2	0,50 +/-0,02	320	130
9004103	34,5 +/-0,3	41,0 +/-0,3	3,1 +/-0,3	0,35 +/-0,02	160	58
9004505	37,0 +/-0,3	45,0 +/-0,3	3,0 +/-0,3	0,50 +/-0,02	795	318
9004604	40,0 +/-0,3	46,5 +/-0,3	3,0 +/-0,3	0,40 +/-0,02	135	52
9004605	40,0 +/-0,3	46,5 +/-0,3	3,0 +/-0,3	0,50 +/-0,02	230	92
9005105	42,0 +/-0,3	51,0 +/-0,3	3,4 +/-0,3	0,50 +/-0,02	635	219
9005104	44,0 +/-0,3	51,0 +/-0,3	3,6 +/-0,3	0,40 +/-0,02	180	56
9005404	45,0 +/-0,3	54,0 +/-0,3	3,7 +/-0,3	0,40 +/-0,02	55	47
9005705	51,0 +/-0,3	57,0 +/-0,3	3,6 +/-0,3	0,50 +/-0,02	?	?
9065105	51,0 +/-0,3	61,0 +/-0,3	3,5 +/-0,3	0,50 +/-0,02	520	163
9006104	51,0 +/-0,3	61,0 +/-0,3	3,6 +/-0,3	0,40 +/-0,02	120	38
9006105	51,0 +/-0,3	61,0 +/-0,3	3,7 +/-0,3	0,50 +/-0,02	520	163
9006704	58,0 +/-0,3	67,0 +/-0,3	3,4 +/-0,3	0,40 +/-0,02	205	68
9006705	58,0 +/-0,3	67,0 +/-0,3	3,5 +/-0,3	0,50 +/-0,02	330	110
9097106	61,0 +/-0,3	71,0 +/-0,3	3,0 +/-0,3	0,60 +/-0,02	?	?
9097105	61,0 +/-0,3	71,0 +/-0,3	3,4 +/-0,3	0,50 +/-0,02	300	103
9007104	61,0 +/-0,3	71,0 +/-0,35	3,5 +/-0,3	0,40 +/-0,02	195	63
9007105	61,0 +/-0,3	71,0 +/-0,35	3,5 +/-0,3	0,50 +/-0,02	300	103
9007106	61,0 +/-0,3	71,0 +/-0,35	3,5 +/-0,3	0,60 +/-0,02	?	?
9067105	61,0 +/-0,3	71,0 +/-0,35	4,0 +/-0,3	0,50 +/-0,02	?	?

**KUGELLAGER-AUSGLEICHSSCHEIBEN**  
**BALL BEARING SHIMS**

K&A Nr.	d1 (mm)	d2 (mm)	h (mm)	s Richtwert	P max. (N)	C +/-20% (N/mm)
K&A No.	d1 (mm)	d2 (mm)	h (mm)	s Commanded Value	P max. (N)	C +/-20% (N/mm)
9007176	71,0 +/-0,3	76,7 +/-0,35	3,6 +/-0,3	0,60 +/-0,02	?	?
9017906	71,0 +/-0,3	79,0 +/-0,35	3,5 +/-0,3	0,60 +/-0,02	620	210
9007906	71,0 +/-0,3	79,0 +/-0,35	3,6 +/-0,3	0,60 +/-0,02	740	247
9007179	71,0 +/-0,3	79,0 +/-0,35	3,8 +/-0,3	0,50 +/-0,02	?	?
9018474	74,0 +/-0,3	84,0 +/-0,35	3,5 +/-0,3	0,50 +/-0,02	185	62
9008474	74,0 +/-0,3	84,0 +/-0,35	3,5 +/-0,3	0,60 +/-0,02	665	229
9008410	74,0 +/-0,3	84,0 +/-0,35	3,5 +/-0,3	1,00 +/-0,02	?	?
9008803	79,0 +/-0,3	88,0 +/-0,35	3,7 +/-0,3	0,30 +/-0,02	?	?
9008905	79,0 +/-0,3	89,0 +/-0,35	3,7 +/-0,3	0,50 +/-0,02	365	114
9008906	79,0 +/-0,3	89,0 +/-0,35	3,9 +/-0,3	0,60 +/-0,02	755	229
9009405	84,0 +/-0,3	94,0 +/-0,35	3,6 +/-0,3	0,50 +/-0,02	265	85
9008999	89,0 +/-0,3	99,0 +/-0,35	4,0 +/-0,3	0,50 +/-0,02	255	73
9009906	89,0 +/-0,3	99,0 +/-0,35	4,1 +/-0,3	0,60 +/-0,02	490	140
9010905	99,0 +/-0,3	109,0 +/-0,35	4,2 +/-0,3	0,50 +/-0,02	440	119
9011906	109,0 +/-0,3	119,0 +/-0,35	4,7 +/-0,3	0,60 +/-0,02	655	160
9012405	114,0 +/-0,3	124,0 +/-0,35	4,8 +/-0,3	0,50 +/-0,02	320	76
9012406	114,0 +/-0,3	124,0 +/-0,35	4,8 +/-0,3	0,60 +/-0,02	585	139
9019129	119,0 +/-0,3	129,0 +/-0,35	4,4 +/-0,3	0,50 +/-0,02	290	74
9012906	119,0 +/-0,3	129,0 +/-0,35	4,7 +/-0,3	0,60 +/-0,02	515	129
9012913	129,0 +/-0,3	139,0 +/-0,35	4,2 +/-0,3	0,50 +/-0,02	365	99
9013906	129,0 +/-0,3	139,0 +/-0,35	4,4 +/-0,3	0,60 +/-0,02	390	182



**NUTMUTTERN DIN 981**  
**NUTS FOR HOOK SPANNERS DIN 981**

Artikel-Nr.	Abmessung	
Article No.	Dimensions	
I000000	KM 0	I
I000001	KM 1	I
I000002	KM 2	I
I000003	KM 3	I
I000004	KM 4	I
I000005	KM 5	I
I000006	KM 6	I
I000007	KM 7	I
I000008	KM 8	I
I000009	KM 9	I
I000010	KM 10	I
I000011	KM 11	I
I000012	KM 12	I
I000013	KM 13	I
I000014	KM 14	I
I000015	KM 15	I
I000016	KM 16	I
I000017	KM 17	I
I000018	KM 18	I
I000019	KM 19	I
I000020	KM 20	I
I000021	KM 21	I

**NUTMUTTERN DIN 981**  
**NUTS FOR HOOK SPANNERS DIN 981**

Artikel-Nr.	Abmessung	
Article No.	Dimensions	
I000022	KM 22	I
I000023	KM 23	I
I000024	KM 24	I
I000025	KM 25	I
I000026	KM 26	I
I000027	KM 27	I
I000028	KM 28	I
I000029	KM 29	I
I000030	KM 30	I
I000031	KM 31	I
I000032	KM 32	I
I000033	KM 33	I
I000034	KM 34	I
I000036	KM 36	I
I000038	KM 38	I
I000040	KM 40	I



**SICHERUNGSBLECHE DIN 5406**  
**LOCKING WASHERS DIN 5406**

Artikel-Nr.	Abmessung	
Article No.	Dimensions	
I500000	MB 0	50
I500001	MB 1	50
I500002	MB 2	30
I500003	MB 3	50
I500004	MB 4	50
I500005	MB 5	50
I500006	MB 6	50
I500007	MB 7	50
I500008	MB 8	50
I500009	MB 9	50
I500010	MB 10	50
I500011	MB 11	50
I500012	MB 12	50
I500013	MB 13	50
I500014	MB 14	50
I500015	MB 15	50
I500016	MB 16	50
I500017	MB 17	50

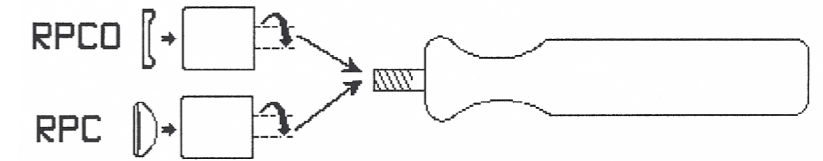
**SICHERUNGSBLECHE DIN 5406**  
**LOCKING WASHERS DIN 5406**

Artikel-Nr.	Abmessung	
Article No.	Dimensions	
I500018	MB 18	50
I500019	MB 19	50
I500020	MB 20	I
I500021	MB 21	I
I500022	MB 22	I
I500023	MB 23	I
I500024	MB 24	I
I500025	MB 25	I
I500026	MB 26	I
I500027	MB 27	I
I500028	MB 28	I
I500030	MB 30	I
I500032	MB 32	I
I500034	MB 34	I
I500035	MB 35	I
I500036	MB 36	I
I500038	MB 38	I
I500040	MB 40	I



# SCHNELLBEFESTIGER QUICK-LOCK-WASHERS

SCHNELLBEFESTIGER  
QUICK-LOCK-WASHERS



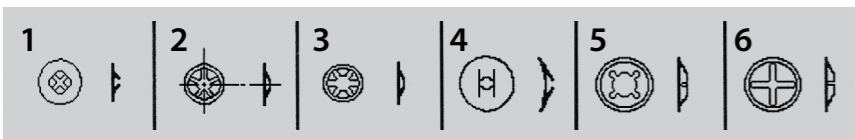
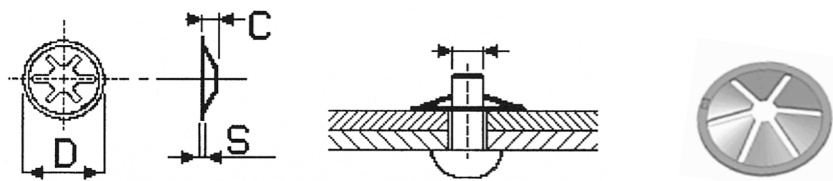
## RPCOT - MONTAGEWERKZEUG RPCOT - QUICKLOCK WASHER ASSEMBLY TOOL

Artikel-Nr.	für Schnellbefestiger	
Article No.	useable for quicklock washer	
RPCOT 3.09	RPCO 3.***.09	9 mm
RPCOT 3.11	RPCO 3.***.11-RPCO 3.***.12	11 mm, 12 mm
RPCOT 3.15	RPCO 3.***.15	15mm
RPCOT 3.18	RPCO 3.***.18	18 mm
RPCOT 3.25	RPCO 3.***.25	25 mm
RPCOT 3.28	RPCO 3.***.28	28 mm
RPCOT 3.36	RPCO 3.***.36	36 mm
RPCOT 3.41	RPCO 3.***.41	41 mm

## RPCT - MONTAGEWERKZEUG RPCT - QUICKLOCK WASHER ASSEMBLY TOOL

Artikel-Nr.	für Schnellbefestiger	
Article No.	useable for quicklock washer	
RPCT 4.12	RPC 4.***.12	12 mm
RPCT 4.16	RPC 4.***.16	16 mm
RPCT 4.20	RPC 4.***.20	20 mm
RPCT 4.27	RPC 4.***.27	27 mm
RPCT 4.30	RPC 4.***.30	30 mm
RPCT 4.39	RPC 4.***.39	39 mm





**RPT**  
**RPT - ROUND PUSH ON FIXES**

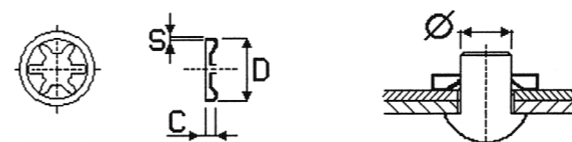
Artikel-Nr.	Ø Schaft	D	S	C	Form
Article No.	Ø Shaft	D	S	C	Shape
RPT 2.015.07	1,5	6,5	0,20	0,8	1
RPT 2.030.11	3,0	10,5	0,30	1,3	2
RPT 2.032.11	3,2	10,5	0,30	1,1	2
RPT 2.030.34	3,0	34,0	0,30	2,0	1
RPT 2.035.11	3,5	10,5	0,30	1,1	2
RPT 2.040.12	4,0	12,0	0,30	1,3	2
RPT 2.048.20	4,8	19,3	0,35	3,4	4
RPT 2.050.15	5,0	15,1	0,30	1,7	5
RPT 2.050.20	5,0	19,3	0,35	3,4	4
RPT 2.050.22	5,0	22,0	0,40	2,9	6
RPT 2.055.15	5,5	15,0	0,50	2,5	2
RPT 2.060.16	6,0	16,0	0,40	1,7	3
RPT 2.060.22	6,0	22,0	0,50	2,9	6

Artikeloberfläche

RPT xxxx. . - unbehandelt, brüniert (z. B. RPT 2.050.15)  
 . - **B** - weiss verzinkt 7 µm (z. B. RPT 2.050.15B)  
 . - **T** - gelb verzinkt plated 7 µm (z. B. RPT 2.050.15T)  
 . - **C** - verchromt 7 µm (z. B. RPT 2.050.15C)

Surface Treatments

RPT xxxx. . - none-self finish and oiled (example RPT 2.050.15)  
 . - **B** - white zinc plated 7 µm (example RPT 2.050.15B)  
 . - **T** - yellow zinc plated 7 µm (example RPT 2.050.15T)  
 . - **C** - chromiting 7 µm (example RPT 2.050.15C)



**RPCO - SCHNELLBEFESTIGER**  
**RPCO - QUICKLOCK WASHER (WITH CLAMP)**

Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck
Article No.	Ø Shaft	D	S	C	allowable load (Newton)
RPCO 3.020.09	2,0	9,0	0,20	1,3	200
RPCO 3.025.09	2,5	9,0	0,20	1,3	200
RPCO 3.030.09	3,0	9,0	0,20	1,3	200
RPCO 3.030.11	3,0	10,9	0,20	1,3	200
RPCO 3.030.111	3,0	10,9	0,20	1,3	100
RPCO 3.030.12	3,0	11,5	0,20	1,3	200
RPCO 3.031.09	3,1	9,0	0,20	1,3	200
RPCO 3.032.09	3,2	9,0	0,20	1,3	200
RPCO 3.040.11	4,0	10,9	0,20	1,3	400
RPCO 3.040.111	4,0	10,9	0,20	1,3	100
RPCO 3.040.12	4,0	11,5	0,20	1,3	400
RPCO 3.040.121	4,0	11,5	0,20	1,3	100
RPCO 3.040.15	4,0	15,0	0,30	1,5	400
RPCO 3.050.11	5,0	10,9	0,20	1,3	600
RPCO 3.050.111	5,0	10,9	0,20	1,3	300
RPCO 3.050.11SV	5,0	10,9/11,8	0,20	1,3	600
RPCO 3.050.12	5,0	11,5	0,20	1,3	600
RPCO 3.050.121	5,0	11,5	0,20	1,3	300
RPCO 3.050.15	5,0	15,0	0,30	1,6	500
RPCO 3.054.15	5,4	15,0	0,30	1,6	500
RPCO 3.060.15	6,0	15,0	0,30	1,6	800
RPCO 3.060.151	6,0	15,0	0,25	1,6	400

Artikeloberfläche

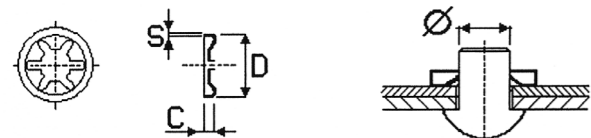
RPCO xxxx. . - unbehandelt, brüniert (z. B. RPCO 3.100.18)  
 . - **B** - weiss verzinkt 7 µm Cr3 (z. B. RPCO 3.100.18B)  
 . - **BM** - gelb verzinkt 7 µm Cr3 (z. B. RPCO 3.100.18BM)  
 . - **C** - verchromt 7 µm Cr3 (z. B. RPCO3.100.18C)  
 . - **F** - phosphatiert (z. B. RPCO3.100.18.F)



Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck
Article No.	Ø Shaft	D	S	C	allowable load (Newton)
RPCO 3.060.15.40	6,0	15,0	0,40	1,6	800
RPCO 3.060.15SV	6,0	15,0/15,8	0,30	1,6	800
RPCO 3.060.20	6,0	20,5	0,30	2,0	800
RPCO 3.065.15	6,5	15,0	0,25	1,6	800
RPCO 3.070.15	7,0	15,0	0,30	1,6	800
RPCO 3.070.151	7,0	15,0	0,25	1,6	600
RPCO 3.076.15	7,6	15,0	0,30	1,6	800
RPCO 3.080.15	8,0	15,0	0,30	1,6	1000
RPCO 3.080.15.40	8,0	15,0	0,40	1,6	
RPCO 3.080.151	8,0	15,0	0,25	1,6	600
RPCO 3.080.20	8,0	20,5	0,30	2,0	1000
RPCO 3.085.15	8,5	15,0	0,30	1,6	
RPCO 3.085.20	8,5	20,5	0,30	2,1	
RPCO 3.090.18	9,0	18,0	0,30	2,1	1000
RPCO 3.090.181	9,0	18,0	0,30	2,1	700
RPCO 3.095.18	9,5	18,0	0,30	2,1	1000
RPCO 3.095.181	9,5	18,0	0,30	2,1	700
RPCO 3.100.18	10,0	18,0	0,30	2,1	1100
RPCO 3.100.181	10,0	18,0	0,30	2,1	800
RPCO 3.100.18SV	10,0	18,0/19,3	0,30	2,1	1100
RPCO 3.105.18	10,5	18,0	0,30	2,1	1100
RPCO 3.110.18	11,0	18,0	0,30	2,1	1200
RPCO 3.110.181	11,0	18,0	0,30	2,1	800
RPCO 3.110.18.40	11,0	18,0	0,40	2,1	

Surface Treatments

RPCO xxxx. . - none-self finish and oiled (example RPCO 3.100.18)  
 . - **B** - white zinc plated 7 µm Cr3 (example RPCO 3.100.18B)  
 . - **BM** - yellow zinc plated 7 µm Cr3 (example RPCO 3.100.18BM)  
 . - **C** - chromiting 7 µm Cr3 (example RPCO 3.100.18C)  
 . - **F** - phosphate (example RPCO 3.100.18.F)



<b>RPCO - SCHNELLBEFESTIGER RPCO - QUICKLOCK WASHER (WITH CLAMP)</b>						
Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck	
Article No.	Ø Shaft	D	S	C	allowable load (Newton)	
RPCO 3.120.18	12,0	18,0	0,30	2,1		
RPCO 3.120.25	12,0	25,0	0,40	3,0	2500	
RPCO 3.120.25I	12,0	25,0	0,40	3,0	800	
RPCO 3.130.25	13,0	25,0	0,40	3,0	2500	
RPCO 3.138.25	13,8	25,0	0,40	3,0	2500	
RPCO 3.140.25	14,0	25,0	0,40	3,0	2500	
RPCO 3.140.25I	14,0	25,0	0,40	3,0		
RPCO 3.150.25	15,0	25,0	0,40	3,0		
RPCO 3.150.25I	15,0	25,0	0,40	3,0		
RPCO 3.150.28	15,0	28,0	0,40	2,8	2500	
RPCO 3.150.28I	15,0	28,0	0,40	2,8		
RPCO 3.160.25	16,0	25,0	0,40	2,8	2500	
RPCO 3.160.25I	16,0	25,0	0,40	2,8		
RPCO 3.160.28	16,0	28,0	0,40	2,8	2500	
RPCO 3.170.28	17,0	28,0	0,40	2,8	2500	
RPCO 3.180.28	18,0	28,0	0,40	2,6	3500	

**Artikelloberfläche**  
RPCO xxxx.

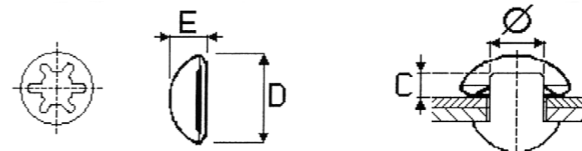
- .. - unbehandelt , brüniert (z. B. RPCO 3.100.18)
- .. - **B** - weiss verzinkt 7 µm Cr3 (z. B. RPCO 3.100.18B)
- .. - **BM** - gelb verzinkt 7 µm Cr3 (z. B. RPCO 3.100.18BM)
- .. - **C** - verchromt 7 µm Cr3 (z. B. RPCO3.100.18C)
- .. - **F** - phosphatiert (z. B. RPCO3.100.18.F)



Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck
Article No.	Ø Shaft	D	S	C	allowable load (Newton)
RPCO 3.180.36	18,0	36,2	0,40	3,0	3500
RPCO 3.190.36	19,0	36,2	0,40	3,0	3500
RPCO 3.200.36	20,0	36,2	0,40	3,0	3500
RPCO 3.200.36I	20,0	36,2	0,40	3,0	3500
RPCO 3.210.36	21,0	36,2	0,40	3,0	3500
RPCO 3.220.36	22,0	36,2	0,40	3,0	3700
RPCO 3.220.36I	22,0	36,2	0,40	3,0	3700
RPCO 3.230.36	23,0	36,2	0,40	3,0	
RPCO 3.240.36	24,0	36,2	0,40	3,0	
RPCO 3.240.41	24,0	41,2	0,50	3,3	4500
RPCO 3.250.41	25,0	41,2	0,50	3,3	5000
RPCO 3.280.44	28,0	44,0	0,50	4,3	
RPCO 3.280.50	28,0	50,0	0,50	4,3	
RPCO 3.300.44	30,0	44,0	0,50	4,3	
RPCO 3.300.50	30,0	50,0	0,50	4,3	
RPCO 3.310.50	31,0	50,0	0,50	4,3	
RPCO 3.320.44	32,0	44,0	0,50	4,3	
RPCO 3.320.50	32,0	50,0	0,50	4,3	

**Surface Treatments**  
RPCO xxxx.

- .. - none-self finish and oiled (example RPCO 3.100.18)
- .. - **B** - white zinc plated 7 µm Cr3 (example RPCO 3.100.18B)
- .. - **BM** - yellow zinc plated 7 µm Cr3 (example RPCO 3.100.18BM)
- .. - **C** - chromiting 7 µm Cr3 (example RPCO 3.100.18C)
- .. - **F** - phosphate (example RPCO 3.100.18.F)



<b>RPC - SCHNELLBEFESTIGER RPC - QUICKLOCK WASHER DOME CAPPED</b>						
Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck	
Article No.	Ø Shaft	D	S	C	allowable load (Newton)	
RPC 4.030.12	3,0	11,8	4,20	3,0	400	
RPC 4.040.12	4,0	11,8	4,20	3,0	600	
RPC 4.050.12	5,0	11,8	4,20	3,0		
RPC 4.040.16	4,0	15,9	5,70	4,0	600	
RPC 4.050.16	5,0	15,9	5,70	4,0	500	
RPC 4.060.16	6,0	15,8	5,70	4,0	800	
RPC 4.065.16	6,5	15,8	5,70	4,0	900	
RPC 4.070.16	7,0	15,8	5,70	4,0	1000	
RPC 4.080.16	8,0	15,8	5,70	4,0	1000	
RPC 4.090.20	9,0	19,5	7,10	4,5	1000	
RPC 4.095.20	9,5	19,5	7,10	4,5	1100	
RPC 4.100.20	10,0	19,5	7,10	4,5	1200	
RPC 4.110.20	11,0	19,5	7,10	4,5	2500	

**Artikelloberfläche**  
RPC xxxx.

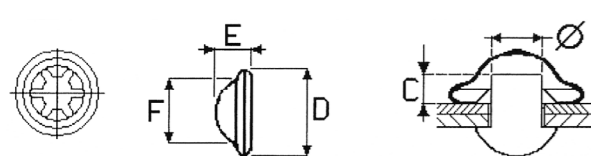
- .. - weiß verzinkt + Kappe vernickelt (z. B. RPC 4.050.12)
- .. - **G** - brüniert + Kappe vernickelt (z. B. RPC 4.050.12G)
- .. - **B** - weiß verzinkt + Kappe weiß verzinkt (z. B. RPC 4.050.12B)
- .. - **FI** - Rostfrei AISI 301 (1.4310) + Kappe vernickelt (z. B. RPC 4.050.12.FI)
- .. - **CI** - weiß verzinkt + Kappe AISI 304 (1.4301) (z. B. RPC 4.050.12.CI)
- .. - **I** - AISI 301 (1.4310) + Kappe AISI 304 (1.4301) (z. B. RPC 4.050.12I)



Artikel-Nr.	Ø Schaft	D	S	C	axialer Druck
Article No.	Ø Shaft	D	S	C	allowable load (Newton)
RPC 4.120.27	12,0	26,7	9,40	6,0	
RPC 4.130.27	13,0	26,7	9,40	6,0	2500
RPC 4.140.27	14,0	26,7	9,40	6,0	2500
RPC 4.150.30	15,0	29,6	9,70	6,0	2500
RPC 4.160.30	16,0	29,6	9,70	6,0	2500
RPC 4.170.30	17,0	29,6	9,70	6,0	3500
RPC 4.180.30	18,0	29,6	9,70	6,0	
RPC 4.190.39	19,0	38,7	10,00	6,0	3500
RPC 4.200.39	20,0	38,7	10,00	6,0	3500
RPC 4.210.39	21,0	38,7	10,00	6,0	3700
RPC 4.220.39	22,0	38,7	10,00	6,0	
RPC 4.230.39	23,0	38,7	10,00	6,0	
RPC 4.240.39	24,0	38,7	10,00	6,0	4500
RPC 4.240.43	24,0	43,0	12,80	7,0	
RPC 4.250.43	25,0	43,0	12,80	7,0	

**Surface Treatments**  
RPC xxxx.

- .. - white zinc plated + cap nicheled (example RPC 4.050.12)
- .. - **G** - oiled + cap nicheled (example RPC 4.050.12G)
- .. - **B** - white zinc plated + cap white zinc plated (example RPC 4.050.12B)
- .. - **FI** - stainless AISI 301 (1.4310) + cap nicheled (example RPC 4.050.12.FI)
- .. - **CI** - white zinc plated + cap AISI 304 (1.4301) (example RPC 4.050.12.CI)
- .. - **I** - AISI 301 (1.4310) + cap AISI 304 (1.4301) (example RPC 4.050.12I)



**RPC - SCHNELLBEFESTIGER**  
**RPC - QUICKLOCK WASHER DOME CAPPED**

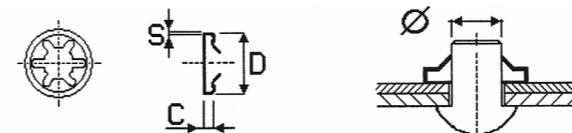
Artikel-Nr.	Ø Schaft	D	C	E	axialer Druck
Article No.	Ø Shaft	D	C	E	allowable load (Newton)
RPCB 5.030.12	3,0	12,1	4,0	2,5	200
RPCB 5.040.12	4,0	12,1	4,0	2,5	400
RPCB 5.050.12	5,0	12,1	4,0	2,5	600
RPCB 5.040.16	4,0	16,0	5,0	4,0	
RPCB 5.050.16	5,0	16,0	5,0	4,0	600
RPCB 5.060.16	6,0	16,0	5,0	4,0	800
RPCB 5.065.16	6,5	16,0	5,0	4,0	800
RPCB 5.070.16	7,0	16,0	5,0	4,0	900
RPCB 5.080.16	8,0	16,0	5,0	4,0	1000
RPCB 5.090.20	9,0	19,7	7,0	4,0	1000
RPCB 5.095.20	9,5	19,7	7,0	4,0	1000
RPCB 5.100.20	10,0	19,7	7,0	4,0	1100
RPCB 5.110.20	11,0	19,7	7,0	4,0	1200

Artikelloberfläche  
RPCB xxxx.

- weiß verzinkt + Kappe vernickelt (z. B. RPCB 5.060.16)
- **G** - brüniert + Kappe vernickelt (z. B. RPCB 5.060.16**G**)
- **B** - weiß verzinkt + Kappe weiß verzinkt (z. B. RPCB 5.060.16**B**)
- **FI** - Rostfrei AISI 301 (1.4310) + Kappe vernickelt (z. B. RPCB5.060.16**FI**)

Surface Treatments  
RPCB xxxx.

- white zinc plated + cap nicheled (example RPCB 5.060.16)
- **G** - oiled + cap nicheled (example RPCB 5.060.16**G**)
- **B** - white zinc plated + cap white zinc plated (example RPCB 5.060.16**B**)
- **FI** - stainless AISI 301 (1.4310) + cap nicheled (example RPCB5.060.16**FI**)



**RPCOR**  
**RPCOR - REVERSED QUICKLOCK WASHER (WITH CLAMP)**

Artikel-Nr.	Ø Schaft	D	S	C
Article No.	Ø Shaft	D	S	C
RPCOR 6.020.09	2,0	9,0	0,20	1,3
RPCOR 6.025.09	2,5	9,0	0,20	1,3
RPCOR 6.030.09	3,0	9,0	0,20	1,3
RPCOR 6.030.11	3,0	10,9	0,20	1,3
RPCOR 6.040.11	4,0	10,9	0,20	1,3
RPCOR 6.050.11	5,0	10,9	0,20	1,3
RPCOR 6.060.15	6,0	15,0	0,30	1,6
RPCOR 6.060.60	6,0	20,5	0,30	2,0
RPCOR 6.065.15	6,5	15,0	0,25	1,6
RPCOR 6.070.15	7,0	15,0	0,30	1,6
RPCOR 6.080.15	8,0	15,0	0,30	1,6
RPCOR 6.080.20	8,0	20,5	0,30	2,0
RPCOR 6.090.18	9,0	18,0	0,30	2,1
RPCOR 6.095.18	9,5	18,0	0,30	2,1
RPCOR 6.100.18	10,0	18,0	0,30	2,1
RPCOR 6.110.18	11,0	18,0	0,30	2,1

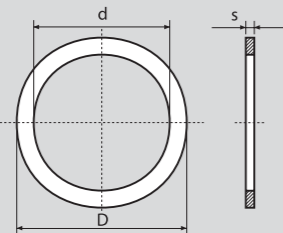
Artikelloberfläche  
RPCOR xxxx.

- unbehandelt, brüniert (z. B. RPCOR 6.100.18)
- **B** - weiss verzinkt 7 µm Cr3 (z. B. RPCOR 6.100.18**B**)
- **BM** - mechanisch verzinkt 7 µm Cr3 (z. B. RPCOR 6.100.18**BM**)
- **C** - verchromt 7 µm Cr3 (z. B. RPCOR 6.100.18**C**)
- **F** - phosphatiert (z. B. RPCOR 6.100.18**F**)
- **T** - verzinkt gelb 7 µm Cr3 (z. B. RPCOR 6.100.18**T**)

Surface Treatments  
RPCOR xxxx.

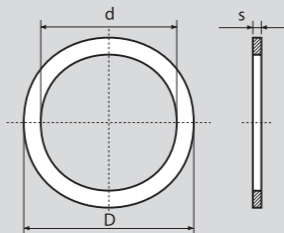
- none-self finish and oiled (example RPCOR 6.100.18)
- **B** - white zinc plated 7 µm Cr3 (example RPCOR 6.100.18**B**)
- **BM** - yellow zinc plated 7 µm Cr3 (example RPCOR 6.100.18**BM**)
- **C** - chromiting 7 µm Cr3 (example RPCOR 6.100.18**C**)
- **F** - phosphate (example RPCOR 6.100.18**F**)
- **T** - yellow zinc plated 7 µm Cr3 (example RPCOR 6.100.18**T**)

**PASSSCHEIBEN ROSTFREI**  
**SHIMWASHERS STAINLESS STEEL**



**krumm&andré**

**PASSSCHEIBEN ROSTFREI**  
**SHIMWASHERS STAINLESS STEEL**



**krumm&andré**



**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2300601	PS 3,0	6,0	0,10
2300602	PS 3,0	6,0	0,20
2300603	PS 3,0	6,0	0,30
2300605	PS 3,0	6,0	0,50
2300361	PS 3,0	6,0	1,00
2300701	PS 3,0	7,0	0,10
2300908	PS 3,0	9,0	0,80
2300801	PS 4,0	8,0	0,10
2300815	PS 4,0	8,0	0,15
2300802	PS 4,0	8,0	0,20
2300803	PS 4,0	8,0	0,30
2304810	PS 4,0	8,0	1,00
2330050	PS 4,0	30,0	0,50
2300905	PS 5,0	9,0	0,50
2301001	PS 5,0	10,0	0,10
2301015	PS 5,0	10,0	0,15
2301002	PS 5,0	10,0	0,20
2391003	PS 5,0	10,0	0,30
2301005	PS 5,0	10,0	0,50
2301010	PS 5,0	10,0	1,00
2301020	PS 5,0	10,0	2,00
2301516	PS 5,0	15,0	1,60
2381002	PS 6,0	10,0	0,20
2381201	PS 6,0	12,0	0,10

**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2301215	PS 6,0	12,0	0,15
2301202	PS 6,0	12,0	0,20
2301203	PS 6,0	12,0	0,30
2301205	PS 6,0	12,0	0,50
2301210	PS 6,0	12,0	1,00
2301212	PS 6,0	12,0	1,20
2301214	PS 6,0	12,0	1,40
2301498	PS 6,0	14,0	0,80
2301315	PS 7,0	13,0	1,50
2301301	PS 7,0	13,0	0,10
2301302	PS 7,0	13,0	0,20
2301303	PS 7,0	13,0	0,30
2311305	PS 7,0	13,0	0,50
2301310	PS 7,0	13,0	1,00
2301102	PS 8,0	11,0	0,20
2301105	PS 8,0	11,0	0,50
2301225	PS 8,0	12,0	0,25
2301401	PS 8,0	14,0	0,10
2301415	PS 8,0	14,0	0,15
2301402	PS 8,0	14,0	0,20
2301425	PS 8,0	14,0	0,25
2301405	PS 8,0	14,0	0,50
2301410	PS 8,0	14,0	1,00
2301412	PS 8,0	14,0	1,20

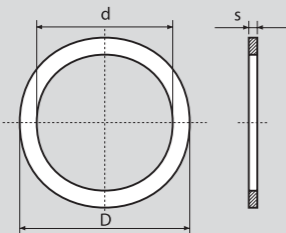
**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2391415	PS 8,0	14,0	1,50
2301515	PS 8,0	15,0	1,50
2391701	PS 8,0	17,0	0,10
2301501	PS 9,0	15,0	0,10
2301503	PS 9,0	15,0	0,30
2301504	PS 9,0	15,0	0,40
2391505	PS 9,0	15,0	0,50
2309151	PS 9,0	15,0	1,00
2301512	PS 9,0	15,0	1,20
2301520	PS 9,0	15,0	2,00
2302430	PS 9,0	24,0	3,00
2301155	PS 10,0	15,0	0,50
2301601	PS 10,0	16,0	0,10
2391615	PS 10,0	16,0	0,15
2301602	PS 10,0	16,0	0,20
2301625	PS 10,0	16,0	0,25
2301603	PS 10,0	16,0	0,30
2301605	PS 10,0	16,0	0,50
2301610	PS 10,0	16,0	1,00
2301612	PS 10,0	16,0	1,20
2311615	PS 10,0	16,0	1,50
2301620	PS 10,0	16,0	2,00
2301910	PS 10,0	19,0	1,00
2301701	PS 11,0	17,0	0,10
2301702	PS 11,0	17,0	0,20
2301703	PS 11,0	17,0	0,30
2301705	PS 11,0	17,0	0,50
2301801	PS 12,0	18,0	0,10
2301802	PS 12,0	18,0	0,20
2301825	PS 12,0	18,0	0,25
2301803	PS 12,0	18,0	0,30
2301805	PS 12,0	18,0	0,50
2301810	PS 12,0	18,0	1,00
2391812	PS 12,0	18,0	1,20

**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

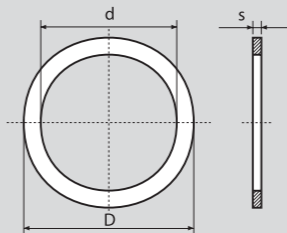
Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2321820	PS 12,0	18,0	2,00
2322010	PS 12,0	20,0	1,00
2301243	PS 12,0	24,0	0,30
2301901	PS 13,0	19,0	0,10
2301915	PS 13,0	19,0	0,15
2391902	PS 13,0	19,0	0,20
2301925	PS 13,0	19,0	0,25
2301903	PS 13,0	19,0	0,30
2301905	PS 13,0	19,0	0,50
2391910	PS 13,0	19,0	1,00
2303030	PS 13,0	30,0	3,00
2382001	PS 14,0	20,0	0,10
2382015	PS 14,0	20,0	0,15
2302025	PS 14,0	20,0	0,25
2382003	PS 14,0	20,0	0,30
2312005	PS 14,0	20,0	0,50
2302010	PS 14,0	20,0	1,00
2302015	PS 14,0	20,0	1,50
2302020	PS 14,0	20,0	2,00
2302102	PS 15,0	21,0	0,20
2302103	PS 15,0	21,0	0,30
2302105	PS 15,0	21,0	0,50
2302110	PS 15,0	21,0	1,00
2302115	PS 15,0	21,0	1,50
2302120	PS 15,0	21,0	2,00
2302101	PS 15,0	21,0	0,10
2392201	PS 15,0	22,0	0,10
2392203	PS 15,0	22,0	0,30
2392210	PS 15,0	22,0	1,00
2392215	PS 15,0	22,0	1,50
2302201	PS 16,0	22,0	0,10
2322015	PS 16,0	22,0	0,15
2302225	PS 16,0	22,0	0,25
2302203	PS 16,0	22,0	0,30

**PASSSCHEIBEN ROSTFREI**  
**SHIMWASHERS STAINLESS STEEL**



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**PASSSCHEIBEN ROSTFREI**  
**SHIMWASHERS STAINLESS STEEL**



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**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2302205	PS 16,0	22,0	0,50
2302210	PS 16,0	22,0	1,00
2302212	PS 16,0	22,0	1,20
2372215	PS 16,0	22,0	1,50
2302503	PS 16,0	25,0	0,30
2302605	PS 16,0	26,0	0,50
2302320	PS 17,0	23,0	3,00
2302401	PS 17,0	24,0	0,10
2392402	PS 17,0	24,0	0,20
2302403	PS 17,0	24,0	0,30
2302405	PS 17,0	24,0	0,50
2302410	PS 17,0	24,0	1,00
2302415	PS 17,0	24,0	1,50
2302420	PS 17,0	24,0	2,00
2302501	PS 18,0	25,0	0,10
2302515	PS 18,0	25,0	0,15
2302502	PS 18,0	25,0	0,20
2302525	PS 18,0	25,0	0,25
2382503	PS 18,0	25,0	0,30
2302505	PS 18,0	25,0	0,50
2302510	PS 18,0	25,0	1,00
2302602	PS 19,0	26,0	0,20
2302603	PS 19,0	26,0	0,30
2302685	PS 19,0	26,0	0,85
2302610	PS 19,0	26,0	1,00
2302615	PS 19,0	26,0	1,50
2302801	PS 20,0	28,0	0,10
2302815	PS 20,0	28,0	0,15
2302802	PS 20,0	28,0	0,20
2302803	PS 20,0	28,0	0,30
2302805	PS 20,0	28,0	0,50
2302810	PS 20,0	28,0	1,00
2302820	PS 20,0	28,0	2,00
2303010	PS 20,0	30,0	1,00

**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2303001	PS 22,0	30,0	0,10
2303002	PS 22,0	30,0	0,20
2303003	PS 22,0	30,0	0,30
2303005	PS 22,0	30,0	0,50
2303020	PS 22,0	30,0	2,00
2393201	PS 22,0	32,0	0,10
2393202	PS 22,0	32,0	0,20
2303203	PS 22,0	32,0	0,30
2303205	PS 22,0	32,0	0,50
2303210	PS 22,0	32,0	1,00
2303220	PS 22,0	32,0	2,00
2313205	PS 25,0	32,0	0,50
2313210	PS 25,0	32,0	1,00
2303501	PS 25,0	35,0	0,10
2303515	PS 25,0	35,0	0,15
2303502	PS 25,0	35,0	0,20
2303503	PS 25,0	35,0	0,30
2303505	PS 25,0	35,0	0,50
2303510	PS 25,0	35,0	1,00
2303512	PS 25,0	35,0	1,20
2353515	PS 25,0	35,0	1,50
2393602	PS 25,0	36,0	0,20
2303615	PS 25,0	36,0	1,50
2323620	PS 25,0	36,0	2,00
2303702	PS 26,0	37,0	0,20
2303705	PS 26,0	37,0	0,50
2303710	PS 26,0	37,0	1,00
2303712	PS 26,0	37,0	1,20
2303602	PS 27,0	36,0	0,20
2303605	PS 28,0	36,0	0,50
2304001	PS 28,0	40,0	0,10
2304015	PS 28,0	40,0	0,15
2304003	PS 28,0	40,0	0,30
2304005	PS 28,0	40,0	0,50

**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

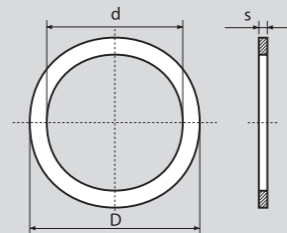
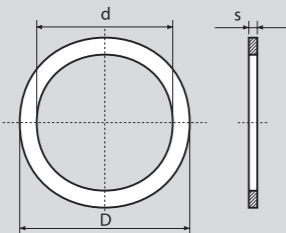
Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2384010	PS 28,0	40,0	1,00
2304020	PS 28,0	40,0	2,00
2314005	PS 30,0	40,0	0,50
2304201	PS 30,0	42,0	0,10
2304202	PS 30,0	42,0	0,20
2304203	PS 30,0	42,0	0,30
2304205	PS 30,0	42,0	0,50
2304210	PS 30,0	42,0	1,00
2304220	PS 30,0	42,0	2,00
2394501	PS 32,0	45,0	0,10
2374505	PS 32,0	45,0	0,50
2334215	PS 33,0	42,0	1,50
2304501	PS 35,0	45,0	0,10
2305452	PS 35,0	45,0	0,20
2304503	PS 35,0	45,0	0,30
2304505	PS 35,0	45,0	0,50
2304510	PS 35,0	45,0	1,00
2314515	PS 35,0	45,0	1,50
2344505	PS 36,0	45,0	0,50
2374701	PS 37,0	47,0	0,10
2347020	PS 37,0	47,0	0,20
2304710	PS 37,0	47,0	1,00
2305001	PS 40,0	50,0	0,10
2305010	PS 40,0	50,0	1,00
2305201	PS 42,0	52,0	0,10
2305203	PS 42,0	52,0	0,30
2305205	PS 42,0	52,0	0,50
2385501	PS 45,0	55,0	0,10
2385502	PS 45,0	55,0	0,20
2305610	PS 45,0	55,0	1,00
2306201	PS 50,0	62,0	0,10
2306202	PS 50,0	62,0	0,20
2306203	PS 50,0	62,0	0,30
2306205	PS 50,0	62,0	0,50

**PASSSCHEIBEN NACH DIN 988 ROSTFREI**  
**SHIMWASHERS ACC. DIN 988 STAINLESS STEEL**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2306210	PS 50,0	62,0	1,00
2306301	PS 50,0	63,0	0,10
2306305	PS 50,0	63,0	0,50
2300751	PS 65,0	75,0	1,00
2307901	PS 69,0	79,0	0,10

Rostfreies Material:

- 1.4301 = AISI 304 = A2
- 1.4310 = AISI 301 = A2
- 1.4401 = AISI 316 = A4
- 1.4404 = AISI 316 = A4



**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2090603	PS 4,0	6,0	0,30
2099801	PS 4,0	7,0	0,10
2004073	PS 4,0	7,0	0,30
2000595	PS 5,0	9,0	0,50
2068510	PS 6,0	8,5	1,00
2086905	PS 6,0	9,0	0,50
2001110	PS 6,0	11,0	1,00
2010002	PS 7,0	10,0	0,20
2061302	PS 7,0	11,0	0,20
2007113	PS 7,0	11,0	0,30
2071193	PS 7,0	11,9	0,30
2071195	PS 7,0	11,9	0,50
2050710	PS 7,0	10,0	0,10
2007951	PS 7,0	9,5	0,10
2090011	PS 8,0	10,0	0,10
2011001	PS 8,0	10,0	0,10
2001009	PS 8,0	10,0	0,20
2001005	PS 8,0	10,0	0,50
2028101	PS 8,0	10,0	1,00
2071105	PS 8,0	11,0	0,50
2012801	PS 8,0	12,0	0,10
2071215	PS 8,0	12,0	0,15
2091292	PS 8,0	12,0	0,20
2001205	PS 8,0	12,0	0,50
2091210	PS 8,0	12,0	1,00
2001251	PS 8,0	12,5	0,10
2081302	PS 8,0	13,0	0,20
2001320	PS 8,0	13,0	2,00
2014059	PS 8,5	14,0	0,50
2091410	PS 8,5	14,0	1,00
2001291	PS 9,0	12,0	0,10
2021202	PS 9,0	12,0	0,20
2000125	PS 9,0	12,0	0,50
2001210	PS 9,0	12,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2090121	PS 10,0	12,0	0,10
2090122	PS 10,0	12,0	0,20
2001301	PS 10,0	13,0	0,10
2001302	PS 10,0	13,0	0,20
2001305	PS 10,0	13,0	0,50
2055410	PS 10,0	14,0	1,00
2015920	PS 10,0	15,0	0,20
2015820	PS 10,0	15,8	0,20
2015823	PS 10,0	15,8	0,30
2015850	PS 10,0	15,8	0,50
2011581	PS 10,0	15,8	1,00
2001611	PS 10,0	16,0	1,10
2011616	PS 10,0	16,0	1,60
2013059	PS 10,6	13,0	0,50
2011131	PS 11,0	13,0	1,00
2011145	PS 11,0	14,0	0,50
2000152	PS 11,0	15,0	0,20
2012151	PS 12,0	15,0	0,10
2012152	PS 12,0	15,0	0,20
2015125	PS 12,0	15,0	0,25
2012153	PS 12,0	15,0	0,30
2012155	PS 12,0	15,0	0,50
2001605	PS 12,0	16,0	0,50
2091818	PS 12,0	18,0	1,80
2012182	PS 12,2	18,0	0,20
2041603	PS 14,0	16,0	0,30
2000165	PS 14,0	16,0	0,50
2091703	PS 14,0	17,0	0,30
2021802	PS 14,0	18,0	0,20
2004183	PS 14,0	18,0	0,30
2080185	PS 14,0	18,0	0,50
2002013	PS 14,0	20,0	1,30
2002425	PS 14,5	24,0	0,25
2019502	PS 15,0	19,5	0,20

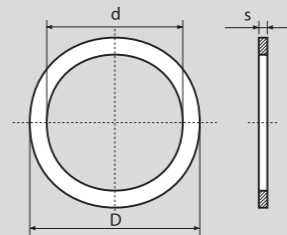
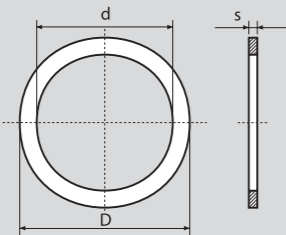
**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2020051	PS 15,0	20,0	0,10
2020150	PS 15,0	20,0	0,15
2020058	PS 15,0	20,0	0,50
2002114	PS 15,0	21,0	1,40
2042110	PS 15,0	21,5	1,00
2052210	PS 15,5	22,0	1,00
2091801	PS 16,0	18,0	0,10
2016193	PS 16,0	19,0	0,30
2072015	PS 16,0	20,0	0,15
2092003	PS 16,0	20,0	0,30
2000205	PS 16,0	20,0	0,50
2092218	PS 16,0	22,0	1,80
2022019	PS 16,5	22,0	0,10
2021215	PS 17,0	21,0	0,50
2099201	PS 17,0	22,0	0,10
2022175	PS 17,0	22,0	0,50
2081702	PS 17,0	23,0	0,20
2082401	PS 17,3	24,0	0,10
2022050	PS 18,0	22,0	0,50
2018245	PS 18,0	24,0	1,50
2012218	PS 18,5	22,0	1,00
2016903	PS 19,0	24,8	0,30
2092485	PS 19,0	24,8	0,50
2002613	PS 19,0	26,0	1,30
2092505	PS 20,0	23,0	0,15
2092502	PS 20,0	23,0	0,20
2052010	PS 20,0	23,0	1,00
2012401	PS 20,0	24,0	0,10
2052501	PS 20,0	25,0	0,10
2020255	PS 20,0	25,0	0,50
2032510	PS 20,0	25,0	1,00
2092520	PS 20,0	25,0	2,00
2025510	PS 20,0	25,5	1,00
2052601	PS 20,0	26,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2002610	PS 20,0	26,0	1,00
2002620	PS 20,0	26,0	2,00
2022811	PS 20,0	28,0	1,10
2002816	PS 20,0	28,0	1,60
2002818	PS 20,0	28,0	1,80
2002551	PS 20,0	25,5	1,00
2002802	PS 21,0	28,0	0,20
2082820	PS 21,0	28,0	2,00
2002820	PS 21,0	28,0	2,00
2025140	PS 22,0	25,0	1,40
2025142	PS 22,0	25,0	1,425
2025145	PS 22,0	25,0	1,45
2022261	PS 22,0	26,0	0,10
2022291	PS 22,0	29,0	0,10
2083105	PS 22,0	31,0	0,50
2002615	PS 22,0	35,0	0,15
2031510	PS 23,0	31,5	1,00
2002981	PS 24,0	29,8	0,10
2053005	PS 24,0	30,0	0,50
2024325	PS 24,0	32,0	0,50
2052751	PS 25,0	27,5	1,00
2062815	PS 25,0	28,0	0,15
2028920	PS 25,0	28,0	0,20
2061303	PS 25,0	30,0	0,30
2023101	PS 25,0	31,0	0,10
2023102	PS 25,0	31,0	0,20
2063102	PS 25,0	31,0	0,20
2023105	PS 25,0	31,0	0,50
2083110	PS 25,0	31,0	1,00
2025311	PS 25,0	31,0	1,00
2031515	PS 25,0	31,5	1,50
2013201	PS 25,0	32,0	0,10
2063215	PS 25,0	32,0	0,15
2013202	PS 25,0	32,0	0,20





**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2013203	PS 25,0	32,0	0,30
2013205	PS 25,0	32,0	0,50
2063305	PS 25,0	33,0	0,50
2003310	PS 25,0	33,0	1,00
2073305	PS 25,0	33,5	0,50
2073415	PS 25,0	34,0	0,15
2083410	PS 25,0	34,0	1,00
2093513	PS 25,0	35,0	1,30
2093514	PS 25,0	35,0	1,40
2003502	PS 25,2	35,0	0,20
2026343	PS 26,0	34,0	0,30
2093501	PS 26,0	35,0	0,10
2093625	PS 26,0	36,0	0,25
2026361	PS 26,0	36,0	1,00
2013503	PS 28,0	33,0	0,10
2003451	PS 28,0	34,5	0,10
2073515	PS 28,0	35,0	1,50
2093520	PS 28,0	35,0	2,00
2003610	PS 28,0	36,0	1,00
2003702	PS 28,0	37,0	0,20
2003713	PS 28,0	37,0	0,30
2073802	PS 28,0	38,0	0,20
2073805	PS 28,0	38,0	0,50
2043810	PS 28,0	38,0	1,00
2028445	PS 28,4	40,0	0,50
2029352	PS 29,0	35,0	0,20
2053501	PS 29,0	35,0	0,30
2040910	PS 29,0	40,0	1,00
2003403	PS 30,0	34,0	0,30
2034030	PS 30,0	34,9	0,30
2053503	PS 30,0	35,0	0,30
2083510	PS 30,0	35,0	1,00
2090361	PS 30,0	36,0	1,00
2033701	PS 30,0	37,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2073801	PS 30,0	38,0	0,10
2093815	PS 30,0	38,0	0,15
2038015	PS 30,0	38,0	0,15
2073803	PS 30,0	38,0	0,30
2038050	PS 30,0	38,0	0,50
2063810	PS 30,0	38,0	1,00
2003902	PS 30,0	39,0	0,20
2000941	PS 30,0	40,0	0,10
2044015	PS 30,0	40,0	0,15
2000942	PS 30,0	40,0	0,20
2000945	PS 30,0	40,0	0,50
2030415	PS 30,0	40,0	1,50
2064110	PS 30,0	41,0	1,00
2004204	PS 30,0	42,0	0,40
2004203	PS 30,0	42,0	1,30
2004214	PS 30,0	42,0	1,40
2004216	PS 30,0	42,0	1,60
2004218	PS 30,0	42,0	1,80
2003905	PS 30,2	39,0	0,50
2003705	PS 30,5	37,0	0,50
2073710	PS 30,5	37,0	1,00
2093720	PS 30,5	37,0	2,00
2090405	PS 30,5	40,0	0,50
2084203	PS 30,5	42,0	0,30
2093801	PS 31,0	38,0	0,10
2083115	PS 31,0	38,0	0,15
2039015	PS 35,0	39,8	0,15
2036242	PS 36,2	45,0	0,20
2036451	PS 36,2	45,0	1,00
2036241	PS 36,2	45,0	0,10
2046501	PS 38,5	46,5	0,10
2046515	PS 38,5	46,5	0,15
2046503	PS 38,5	46,5	0,30
2093602	PS 32,0	36,0	0,20

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

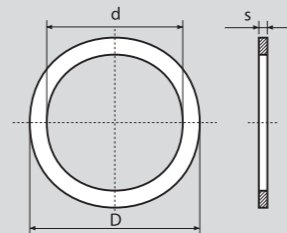
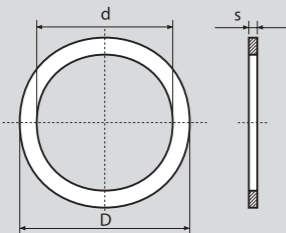
Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2063602	PS 32,0	36,0	0,20
2003603	PS 32,0	36,0	0,30
2003605	PS 32,0	36,0	0,30
2013605	PS 32,0	36,0	0,50
2003701	PS 32,0	37,0	0,10
2032381	PS 32,0	38,0	1,00
2093810	PS 32,0	38,0	1,00
2039903	PS 32,0	39,9	0,30
2040322	PS 32,0	40,0	0,20
2032453	PS 32,0	40,0	0,30
2064005	PS 32,0	40,0	0,50
2032423	PS 32,0	42,0	0,30
2044019	PS 32,0	44,0	0,10
2004403	PS 32,0	44,0	0,30
2004410	PS 32,0	44,0	1,00
2064501	PS 33,5	45,0	0,10
2074503	PS 33,5	45,0	0,30
2040003	PS 34,0	40,0	0,30
2084201	PS 34,0	42,0	0,10
2064203	PS 34,0	42,0	0,30
2034455	PS 34,0	45,0	0,50
2094105	PS 34,2	41,0	0,50
2013901	PS 35,0	39,0	0,10
2060410	PS 35,0	40,0	1,00
2070420	PS 35,0	40,0	2,00
2041903	PS 35,0	41,9	0,30
2035421	PS 35,0	42,0	0,10
2034203	PS 35,0	42,0	0,30
2035422	PS 35,0	42,0	2,00
2004301	PS 35,0	43,0	0,10
2094315	PS 35,0	43,0	0,15
2084325	PS 35,0	43,0	0,25
2094305	PS 35,0	43,0	0,50
2004310	PS 35,0	43,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2044502	PS 35,0	44,0	0,20
2084518	PS 35,0	45,0	1,80
2035210	PS 35,0	52,0	1,00
2094303	PS 35,0	43,0	0,30
2099415	PS 35,2	40,0	1,50
2061451	PS 35,5	45,0	1,50
2074501	PS 35,7	45,0	0,10
2004503	PS 35,7	45,0	0,30
2054510	PS 35,7	45,0	1,00
2044001	PS 36,0	40,0	0,10
2004015	PS 36,0	40,0	0,15
2064002	PS 36,0	40,0	0,20
2093403	PS 36,0	40,0	0,30
2000405	PS 36,0	40,0	0,50
2004101	PS 36,0	41,5	0,10
2094115	PS 36,0	41,5	0,15
2064215	PS 36,0	42,0	0,15
2034215	PS 37,0	42,0	0,15
2014203	PS 37,0	42,0	0,30
2037421	PS 37,0	42,0	1,00
2094503	PS 37,0	45,0	0,30
2047175	PS 37,0	47,0	1,75
2014703	PS 38,0	43,0	0,30
2004502	PS 38,0	45,0	0,20
2084505	PS 38,0	45,0	0,50
2014702	PS 38,0	47,0	0,20
2094814	PS 38,0	48,0	1,40
2094092	PS 39,0	44,0	0,20
2044205	PS 39,0	44,0	0,50
2034520	PS 40,0	45,0	2,00
2004601	PS 40,0	46,0	0,10
2040461	PS 40,0	46,0	1,00
2044655	PS 40,0	46,5	0,50
2004703	PS 40,0	47,0	0,30







**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2004705	PS 40,0	47,0	0,50
2044710	PS 40,0	47,0	1,00
2094901	PS 40,0	49,0	0,10
2094903	PS 40,0	49,0	0,30
2005011	PS 40,0	50,0	1,10
2005016	PS 40,0	50,0	1,60
2005018	PS 40,0	50,0	1,80
2005019	PS 40,0	50,0	1,90
2041455	PS 41,0	45,0	0,50
2095001	PS 41,0	50,0	1,00
2041471	PS 41,8	47,9	1,00
2025101	PS 42,0	51,5	0,10
2025115	PS 42,0	51,5	0,15
2025110	PS 42,0	51,5	1,00
2084810	PS 42,0	48,0	1,00
2004820	PS 42,0	48,0	2,00
2094252	PS 42,0	50,0	0,10
2060505	PS 42,0	50,0	0,50
2052014	PS 42,0	52,0	1,40
2080505	PS 45,0	50,0	0,50
2090505	PS 45,0	50,0	0,50
2045501	PS 45,0	50,0	1,00
2005105	PS 45,0	51,5	0,50
2055202	PS 45,0	52,0	0,20
2065203	PS 45,0	52,0	0,30
2045203	PS 45,0	52,0	0,30
2045525	PS 45,0	52,0	0,50
2045521	PS 45,0	52,0	1,00
2045522	PS 45,0	52,0	2,00
2005610	PS 45,0	56,0	1,60
2055616	PS 45,0	56,0	1,60
2095503	PS 45,7	55,0	0,30
2046561	PS 46,0	56,0	0,10
2046565	PS 46,0	56,0	0,50

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2046562	PS 46,0	56,0	2,00
2005701	PS 46,0	57,5	0,10
2005715	PS 46,0	57,5	0,15
2005753	PS 46,0	57,5	0,30
2005751	PS 46,0	57,5	1,00
2075502	PS 47,0	52,0	0,20
2005310	PS 47,0	53,0	1,00
2065501	PS 47,0	55,0	0,10
2047555	PS 47,0	55,0	0,50
2055100	PS 47,0	55,0	1,00
2005801	PS 48,0	55,0	0,10
2005805	PS 48,0	55,0	0,15
2005802	PS 48,0	55,0	0,20
2085505	PS 48,0	55,0	0,50
2005810	PS 48,0	55,0	1,00
2005803	PS 48,0	58,0	0,30
2005710	PS 50,0	57,0	1,00
2050581	PS 50,0	58,0	0,10
2055801	PS 50,0	58,0	0,10
2005582	PS 50,0	58,0	0,20
2050583	PS 50,0	58,0	0,30
2050585	PS 50,0	58,0	0,50
2055810	PS 50,0	58,0	1,00
2006002	PS 50,0	60,0	0,20
2006003	PS 50,0	60,0	0,30
2050605	PS 50,0	60,0	0,50
2006010	PS 50,0	60,0	1,00
2056211	PS 50,0	62,0	1,10
2056213	PS 50,0	62,0	1,30
2056214	PS 50,0	62,0	1,40
2092816	PS 50,0	62,0	1,60
2056217	PS 50,0	62,0	1,70
2096218	PS 50,0	62,0	1,80
2004219	PS 50,0	62,0	1,90

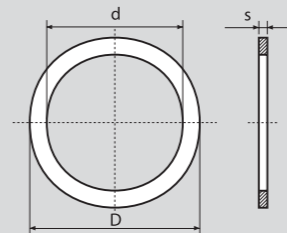
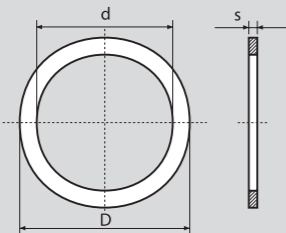
**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2006101	PS 51,0	61,0	0,10
2006151	PS 51,0	61,5	0,10
2006110	PS 51,0	61,5	1,00
2005901	PS 52,0	59,0	0,10
2005902	PS 52,0	59,0	0,20
2006020	PS 52,0	60,0	2,00
2006201	PS 52,0	62,0	0,10
2052621	PS 52,0	62,0	0,15
2086202	PS 52,0	62,0	0,20
2016202	PS 52,0	62,0	0,20
2052623	PS 52,0	62,0	0,30
2006210	PS 52,0	62,0	1,00
2006220	PS 52,0	62,0	2,00
2006401	PS 52,0	64,0	0,10
2006402	PS 52,0	64,0	0,20
2096202	PS 53,0	62,0	0,20
2036203	PS 53,0	62,0	0,30
2006451	PS 53,5	64,5	0,10
2006415	PS 53,5	64,5	0,15
2006453	PS 53,5	64,5	0,30
2006450	PS 53,5	64,5	1,00
2076101	PS 54,0	61,5	0,10
2056220	PS 54,0	62,0	0,20
2054621	PS 54,0	62,0	1,00
2054561	PS 54,5	62,0	1,00
2076001	PS 55,0	60,0	0,10
2006095	PS 55,0	60,0	1,50
2026015	PS 55,0	60,0	1,50
2066105	PS 55,0	61,0	0,50
2066201	PS 55,0	62,0	0,10
2076203	PS 55,0	62,0	0,30
2056205	PS 55,0	62,0	0,50
2016210	PS 55,0	62,0	1,00
2096410	PS 55,0	64,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2006501	PS 55,0	65,0	0,10
2086515	PS 55,0	65,0	1,50
2096520	PS 55,0	65,0	2,00
2006818	PS 55,0	68,0	1,80
2056625	PS 56,0	62,0	0,10
2076215	PS 56,0	62,0	0,15
2086825	PS 56,0	68,0	0,25
2066503	PS 57,0	65,0	0,30
2057655	PS 57,0	65,0	0,50
2066510	PS 57,0	65,0	1,00
2066801	PS 57,0	68,0	0,10
2057683	PS 57,0	68,0	0,30
2057685	PS 57,0	68,0	0,50
2057681	PS 57,0	68,0	1,00
2086801	PS 58,0	68,0	0,10
2016802	PS 58,0	68,0	0,20
2016803	PS 58,0	68,0	0,30
2068039	PS 58,0	68,0	0,30
2056805	PS 58,0	68,0	0,50
2016810	PS 58,0	68,0	1,00
2037010	PS 58,0	70,0	1,00
2077201	PS 58,0	72,0	0,10
2077210	PS 58,0	72,0	0,10
2037203	PS 58,0	72,0	0,30
2047291	PS 59,0	72,0	0,15
2006801	PS 60,0	68,0	0,10
2066802	PS 60,0	68,0	0,20
2006683	PS 60,0	68,0	0,30
2006810	PS 60,0	68,0	1,00
2007001	PS 60,0	70,0	0,10
2037001	PS 60,0	70,0	0,15
2007002	PS 60,0	70,0	0,20
2007005	PS 60,0	70,0	0,50
2007010	PS 60,0	70,0	1,00





**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2097120	PS 60,0	71,5	2,00
2067215	PS 60,0	72,0	0,15
2067225	PS 60,0	72,0	0,25
2077225	PS 60,0	72,0	0,25
2090723	PS 60,0	72,0	0,30
2097210	PS 60,0	72,0	1,00
2047215	PS 60,0	72,0	1,50
2096751	PS 60,0	75,0	0,60
2067511	PS 60,0	75,0	1,10
2067516	PS 60,0	75,0	1,60
2067517	PS 60,0	75,0	1,70
2026802	PS 60,0	80,0	0,20
2061682	PS 61,0	68,0	0,20
2056803	PS 61,0	68,0	0,30
2066103	PS 61,0	68,0	0,30
2046810	PS 61,0	68,0	1,00
2097102	PS 61,0	71,0	0,20
2070611	PS 61,0	70,0	1,00
2006751	PS 62,0	67,5	0,10
2016801	PS 62,0	68,0	0,10
2007101	PS 62,0	71,5	0,10
2037215	PS 62,0	71,5	0,15
2097105	PS 62,0	71,5	0,50
2087225	PS 62,0	72,0	0,25
2087203	PS 62,0	72,0	0,30
2062721	PS 62,0	72,0	1,00
2067220	PS 62,0	72,0	2,00
2097501	PS 62,0	75,0	0,10
2062701	PS 62,0	70,0	1,00
2007201	PS 63,0	72,0	0,10
2027203	PS 63,0	72,0	0,30
2007301	PS 63,0	73,0	0,10
2067410	PS 63,0	74,0	1,00
2063751	PS 63,0	75,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2037505	PS 63,0	75,0	0,50
2097701	PS 63,0	77,5	0,10
2007820	PS 63,0	78,0	2,00
2070085	PS 63,0	80,0	0,60
2088011	PS 63,0	80,0	1,10
2008013	PS 63,0	80,0	1,30
2008014	PS 63,0	80,0	1,40
2006908	PS 63,0	80,0	1,60
2088019	PS 63,0	80,0	1,90
2047405	PS 64,0	74,0	0,50
2087605	PS 64,0	76,0	0,50
2077610	PS 64,0	76,0	1,00
2075721	PS 65,0	72,0	0,10
2065723	PS 65,0	72,0	0,30
2047205	PS 65,0	72,0	0,50
2065721	PS 65,0	72,0	1,00
2007501	PS 65,0	75,0	0,10
2007502	PS 65,0	75,0	0,20
2057505	PS 65,0	75,0	0,50
2087510	PS 65,0	75,0	1,00
2017520	PS 65,0	75,0	2,00
2087901	PS 65,0	79,0	0,10
2050801	PS 65,0	80,0	0,10
2080003	PS 65,0	80,0	0,30
2008095	PS 65,0	80,0	0,50
2088010	PS 65,0	80,0	1,00
2008020	PS 65,0	80,0	2,00
2008511	PS 65,0	85,0	1,10
2008512	PS 65,0	85,0	1,20
2008513	PS 65,0	85,0	1,30
2008514	PS 65,0	85,0	1,40
2098517	PS 65,0	85,0	1,70
2099059	PS 65,0	90,0	0,50
2057702	PS 65,0	77,0	0,20

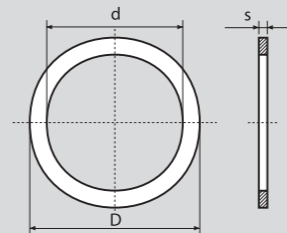
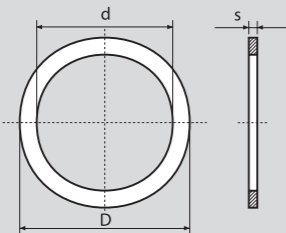
**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2067003	PS 66,0	75,0	0,30
2007505	PS 66,0	75,0	0,50
2007701	PS 66,0	77,0	0,10
2007705	PS 66,0	77,0	0,50
2097805	PS 66,0	78,0	0,50
2096681	PS 66,0	80,0	0,10
2090815	PS 66,0	80,0	0,15
2096683	PS 66,0	80,0	0,30
2096685	PS 66,0	80,0	0,50
2057501	PS 67,0	75,0	0,10
2007515	PS 67,0	75,0	0,15
2099815	PS 68,0	80,0	0,15
2058102	PS 68,0	80,0	0,20
2048003	PS 68,0	80,0	0,30
2068005	PS 68,0	80,0	0,50
2068805	PS 68,0	80,0	0,50
2038801	PS 68,0	80,0	1,00
2080815	PS 68,0	80,0	1,50
2058020	PS 68,0	80,0	2,00
2068501	PS 68,0	85,0	0,10
2068520	PS 68,0	85,0	0,20
2058505	PS 68,0	85,0	0,50
2025851	PS 69,0	85,0	1,00
2077915	PS 70,0	79,0	0,15
2077902	PS 70,0	79,0	0,20
2077903	PS 70,0	79,0	0,30
2028001	PS 70,0	80,0	0,10
2008715	PS 70,0	80,0	0,15
2008085	PS 70,0	80,0	0,50
2080100	PS 70,0	80,0	1,00
2098015	PS 70,0	80,0	1,50
2008055	PS 70,0	80,5	0,50
2008203	PS 70,0	82,0	0,30
2078205	PS 70,0	82,0	0,50

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2078501	PS 70,0	85,0	0,10
2088515	PS 70,0	85,0	0,15
2078503	PS 70,0	85,0	0,30
2068503	PS 70,0	85,0	0,30
2085910	PS 70,0	85,0	1,00
2098520	PS 70,0	85,0	2,00
2009011	PS 70,0	90,0	1,10
2007102	PS 71,0	79,0	0,20
2097815	PS 71,0	85,0	0,15
2071853	PS 71,0	85,0	0,30
2071855	PS 71,0	85,0	0,50
2017851	PS 71,0	85,0	1,00
2079020	PS 71,0	90,0	2,00
2088001	PS 72,0	80,0	0,10
2048015	PS 72,0	80,0	0,15
2080903	PS 72,0	80,0	0,30
2068010	PS 72,0	80,0	1,00
2098405	PS 72,0	84,0	0,50
2098501	PS 72,0	85,0	0,10
2072853	PS 72,0	85,0	0,30
2072855	PS 72,0	85,0	0,50
2098515	PS 72,0	85,0	1,50
2078520	PS 72,0	85,0	2,00
2098801	PS 72,0	88,0	0,10
2007291	PS 72,0	90,0	0,10
2072915	PS 72,0	90,0	0,15
2007293	PS 72,0	90,0	0,30
2095851	PS 73,0	85,0	0,10
2049001	PS 73,0	90,0	0,10
2049003	PS 73,0	90,0	0,30
2079905	PS 73,0	90,0	0,50
2008402	PS 74,0	84,0	0,20
2074901	PS 74,0	90,0	0,10
2074915	PS 74,0	90,0	0,15





**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2074902	PS 74,0	90,0	0,20
2028505	PS 75,0	80,0	0,50
2058501	PS 75,0	85,0	0,10
2008515	PS 75,0	85,0	0,15
2008502	PS 75,0	85,0	0,20
2078510	PS 75,0	85,0	1,00
2008517	PS 75,0	85,0	1,70
2028520	PS 75,0	85,0	2,00
2098705	PS 75,0	87,0	0,50
2018801	PS 75,0	88,0	0,10
2098810	PS 75,0	88,0	1,00
2000901	PS 75,0	90,0	0,10
2079015	PS 75,0	90,0	0,15
2000915	PS 75,0	90,0	0,15
2050030	PS 75,0	90,0	0,30
2009085	PS 75,0	90,0	0,50
2059010	PS 75,0	90,0	1,00
2079025	PS 75,0	90,0	0,25
2059514	PS 75,0	95,0	1,40
2059516	PS 75,0	95,0	1,60
2079518	PS 75,0	95,0	1,80
2076851	PS 76,0	85,0	1,00
2007685	PS 76,0	85,0	0,50
2088801	PS 76,0	88,0	0,10
2076891	PS 76,0	89,0	0,10
2076892	PS 76,0	89,0	0,20
2069001	PS 76,0	90,0	0,10
20760902	PS 76,0	90,0	0,20
2069003	PS 76,0	90,0	0,30
2049005	PS 76,0	90,0	0,50
2076910	PS 76,0	90,0	1,00
2076905	PS 76,0	90,0	0,50
2008905	PS 77,0	89,0	0,50
2008910	PS 77,0	89,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2078902	PS 78,0	90,0	0,20
2090100	PS 78,0	90,0	1,00
2009115	PS 78,0	91,0	0,15
2079951	PS 78,0	95,0	0,15
2089515	PS 78,0	95,0	0,15
2008902	PS 79,0	89,0	0,20
2079002	PS 79,0	90,0	0,20
2099093	PS 79,0	90,0	0,30
2079902	PS 79,0	90,0	2,00
2089020	PS 79,0	90,0	2,00
2008805	PS 80,0	88,0	0,50
2068810	PS 80,0	88,0	1,00
2008820	PS 80,0	88,0	2,00
2068820	PS 80,0	88,0	2,00
2070901	PS 80,0	90,0	0,10
2070915	PS 80,0	90,0	0,15
2039002	PS 80,0	90,0	0,20
2070925	PS 80,0	90,0	0,25
2099003	PS 80,0	90,0	0,30
2000903	PS 80,0	90,0	0,30
2060905	PS 80,0	90,0	0,50
2000912	PS 80,0	90,0	1,20
2029020	PS 80,0	90,0	2,00
2008921	PS 80,0	92,0	1,00
2099015	PS 80,0	95,0	0,15
2009002	PS 80,0	95,0	0,20
2080953	PS 80,0	95,0	0,30
2008951	PS 80,0	95,0	1,00
2089150	PS 80,0	95,0	1,50
2080971	PS 80,0	97,0	1,00
2010011	PS 80,0	100,0	1,10
2010014	PS 80,0	100,0	1,40
2010018	PS 80,0	100,0	1,80
2019515	PS 80,0	95,0	0,15

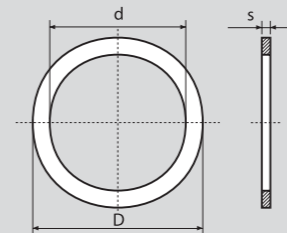
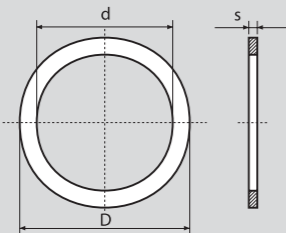
**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2019503	PS 81,0	95,0	0,30
2081953	PS 81,0	95,0	0,30
2059505	PS 81,0	95,0	0,50
2010005	PS 82,0	100,0	0,50
2098101	PS 82,0	100,0	1,00
2070905	PS 83,0	90,0	0,50
2079005	PS 85,0	90,0	0,50
2085902	PS 85,0	90,0	2,00
2009502	PS 85,0	95,0	0,20
2089503	PS 85,0	95,0	0,30
2019520	PS 85,0	95,0	2,00
2009520	PS 85,0	95,0	2,00
2009601	PS 85,0	96,0	0,10
2009603	PS 85,0	96,0	0,30
2080915	PS 85,0	100,0	0,15
2090003	PS 85,0	100,0	0,30
2060103	PS 85,0	100,0	0,30
2060110	PS 85,0	100,0	1,00
2010020	PS 85,0	100,0	2,00
2010516	PS 85,0	105,0	1,60
2010518	PS 85,0	105,0	1,80
2071001	PS 86,0	100,0	0,10
2080015	PS 86,0	100,0	0,15
2071003	PS 86,0	100,0	0,30
2089510	PS 87,0	95,0	1,00
2040101	PS 88,0	100,0	0,10
2040115	PS 88,0	100,0	0,15
2080105	PS 88,0	100,0	0,50
2081001	PS 88,0	100,0	1,00
2090002	PS 88,0	100,0	2,00
2040010	PS 88,0	104,0	0,10
2001575	PS 9,5	15,0	1,50
2099505	PS 90,0	99,0	0,50
2099910	PS 90,0	99,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2099915	PS 90,0	99,5	0,15
2041001	PS 90,0	100,0	0,10
2081002	PS 90,0	100,0	0,20
2009015	PS 90,0	100,0	0,25
2091004	PS 90,0	100,0	0,40
2071005	PS 90,0	100,0	0,50
2070015	PS 90,0	100,0	1,50
2010120	PS 90,0	100,0	2,00
2010501	PS 90,0	105,0	0,10
2080515	PS 90,0	105,0	0,15
2010503	PS 90,0	105,0	0,30
2010505	PS 90,0	105,0	0,50
2010510	PS 90,0	105,0	1,00
2040515	PS 90,0	105,0	1,50
2010805	PS 90,0	108,0	0,50
2009910	PS 90,0	110,0	1,10
2010001	PS 93,0	100,0	0,10
2091111	PS 94,0	110,0	0,10
2011015	PS 94,0	110,0	0,15
2011020	PS 94,0	110,0	0,20
2094113	PS 94,0	110,0	0,30
2031105	PS 94,0	110,0	0,50
2094111	PS 94,0	110,0	1,00
2071051	PS 95,0	105,0	1,00
2003113	PS 95,0	110,0	0,30
2021105	PS 95,0	110,0	0,50
2011090	PS 95,0	110,0	1,00
2091051	PS 96,0	105,0	1,00
2096111	PS 96,0	110,0	0,10
2011002	PS 96,0	110,0	0,20
2096115	PS 96,0	110,0	0,50
2021153	PS 99,0	115,0	0,30
2011510	PS 99,0	115,0	1,00
2071101	PS 100,0	110,0	0,10





**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2091105	PS 100,0	110,0	0,15
2090102	PS 100,0	110,0	0,20
2071103	PS 100,0	110,0	0,30
2081105	PS 100,0	110,0	0,50
2011293	PS 100,0	112,5	0,30
2019205	PS 100,0	112,5	0,50
2011121	PS 100,0	112,5	1,00
2011902	PS 100,0	119,0	0,20
2012018	PS 100,0	120,0	1,80
2011291	PS 100,0	112,0	1,00
2011791	PS 100,0	117,0	1,00
2012291	PS 100,0	122,0	1,00
2022015	PS 102,0	120,0	0,15
2010203	PS 102,0	120,0	0,30
2080125	PS 102,0	120,0	0,50
2031152	PS 103,0	115,0	0,20
2003121	PS 103,0	120,0	0,10
2013125	PS 103,0	120,0	0,50
2013121	PS 103,0	120,0	1,00
2011315	PS 105,0	113,0	0,15
2091451	PS 105,0	114,5	1,00
2015100	PS 105,0	115,0	1,00
2051151	PS 105,0	115,0	1,00
2052001	PS 105,0	120,0	0,10
2041201	PS 105,0	120,0	0,15
2031202	PS 105,0	120,0	0,20
2052002	PS 105,0	120,0	0,20
2081225	PS 105,0	120,0	0,25
2003123	PS 105,0	120,0	0,30
2070125	PS 105,0	120,0	0,50
2071210	PS 105,0	120,0	1,00
2012591	PS 105,0	125,0	0,10
2041253	PS 105,0	125,0	0,30
2022510	PS 105,0	125,0	1,00

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2061151	PS 106,0	115,0	1,00
2012001	PS 106,0	120,0	0,10
2012015	PS 106,0	120,0	0,15
2012010	PS 106,0	120,0	1,00
2031151	PS 108,0	115,0	1,00
2012081	PS 108,0	120,0	0,10
2012581	PS 108,0	125,0	0,10
2012082	PS 108,0	125,0	0,15
2018253	PS 108,0	125,0	0,30
2012585	PS 108,0	125,0	0,50
2012002	PS 110,0	120,0	0,20
2012005	PS 110,0	120,0	0,50
2012020	PS 110,0	120,0	2,00
2012215	PS 110,0	122,0	0,15
2012202	PS 110,0	122,0	0,20
2012203	PS 110,0	122,0	0,30
2012455	PS 110,0	124,5	0,50
2012451	PS 110,0	124,5	1,00
2012501	PS 110,0	125,0	0,10
2031251	PS 110,0	125,0	0,15
2011252	PS 110,0	125,0	0,20
2011255	PS 110,0	125,0	0,50
2012510	PS 110,0	125,0	1,00
2031315	PS 110,0	130,0	0,15
2011132	PS 110,0	130,0	0,20
2043003	PS 110,0	130,0	0,30
2091351	PS 110,0	135,0	0,10
2091251	PS 112,0	125,0	0,10
2071255	PS 112,0	125,0	0,15
2012502	PS 112,0	125,0	0,20
2012503	PS 112,0	125,0	0,30
2041255	PS 112,0	125,0	0,50
2081251	PS 112,0	125,0	1,00
2012301	PS 112,0	130,0	0,10

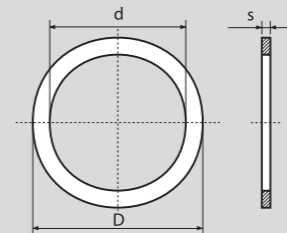
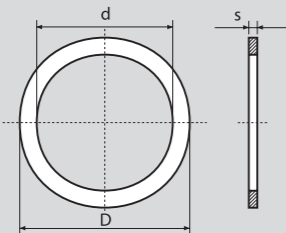
**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2013715	PS 112,0	130,0	0,15
2012303	PS 112,0	130,0	0,30
2012305	PS 112,0	130,0	0,50
2021310	PS 112,0	130,0	1,00
2008145	PS 114,0	140,0	0,50
2008141	PS 114,0	140,0	1,00
2061255	PS 115,0	125,0	0,15
2051251	PS 115,0	125,0	1,00
2073015	PS 115,0	130,0	0,15
2073002	PS 115,0	130,0	0,20
2081301	PS 115,0	130,0	1,00
2013702	PS 115,0	137,0	0,20
2013703	PS 115,0	137,0	0,30
2019141	PS 115,0	140,0	0,10
2091151	PS 115,5	130,0	0,10
2091150	PS 115,5	130,0	0,15
2011513	PS 115,5	130,0	0,30
2011555	PS 115,5	130,0	0,50
2031155	PS 115,5	130,0	0,50
2013001	PS 116,0	130,0	0,10
2013005	PS 116,0	130,0	0,50
2013601	PS 116,5	136,0	0,10
2012901	PS 118,0	129,0	0,10
2092915	PS 118,0	129,0	0,15
2012902	PS 118,0	129,0	0,20
2013092	PS 118,0	130,0	0,20
2013415	PS 118,0	134,5	0,15
2071301	PS 120,0	130,0	0,10
2013515	PS 120,0	135,0	0,15
2013505	PS 120,0	135,0	0,50
2011401	PS 120,0	140,0	0,10
2090145	PS 120,0	140,0	0,50
2061410	PS 120,0	140,0	1,00
2054501	PS 120,0	145,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2031451	PS 120,0	145,0	0,10
2041451	PS 120,0	145,0	0,15
2064503	PS 120,0	145,0	0,30
2013019	PS 121,0	130,0	1,00
2071401	PS 122,0	140,0	0,10
2024015	PS 122,0	140,0	0,15
2071405	PS 122,0	140,0	0,50
2061401	PS 122,0	140,0	1,00
2014091	PS 125,0	140,0	0,10
2051415	PS 125,0	140,0	0,15
2014002	PS 125,0	140,0	0,20
2012543	PS 125,0	140,0	0,30
2014085	PS 125,0	140,0	0,50
2071453	PS 125,0	145,0	0,30
2014505	PS 125,0	145,0	0,50
2071451	PS 125,0	145,0	1,00
2015001	PS 125,0	150,0	0,10
2012551	PS 125,0	150,0	1,00
2085003	PS 126,0	150,0	0,30
2013905	PS 129,0	139,0	0,50
2013145	PS 130,0	145,0	1,00
2015091	PS 130,0	150,0	0,10
2070151	PS 130,0	150,0	0,10
2014039	PS 130,0	150,0	0,15
2013152	PS 130,0	150,0	0,20
2090153	PS 130,0	150,0	0,30
2015010	PS 130,0	150,0	1,00
2015503	PS 130,0	155,0	0,30
2015505	PS 130,0	155,0	0,50
2015510	PS 130,0	155,0	1,00
2014601	PS 130,5	146,0	0,10
2013153	PS 132,0	150,0	0,30
2081501	PS 134,0	150,0	0,15
2096001	PS 134,0	160,0	0,10





**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2086003	PS 134,0	160,0	0,30
2035161	PS 135,0	160,0	1,00
2015011	PS 135,0	150,0	0,10
2013530	PS 135,0	150,0	0,30
2071505	PS 135,0	150,0	0,50
2035151	PS 135,0	150,0	1,00
2014803	PS 135,0	148,0	0,30
2051601	PS 139,0	160,0	0,10
2039603	PS 139,0	160,0	0,30
2039605	PS 139,0	160,0	0,50
2096015	PS 140,0	160,0	0,15
2016094	PS 140,0	160,0	0,30
2016005	PS 140,0	160,0	0,50
2091691	PS 140,0	160,0	1,00
2015901	PS 142,5	159,5	1,00
2045161	PS 145,0	160,0	0,10
2091602	PS 145,0	160,0	0,20
2045165	PS 145,0	160,0	0,50
2087001	PS 145,0	170,0	0,10
2021701	PS 145,0	170,0	1,00
2014605	PS 146,3	170,0	0,50
2067005	PS 146,3	170,0	0,50
2009710	PS 146,3	170,0	1,00
2001701	PS 148,0	170,0	0,10
2041703	PS 148,0	170,0	0,30
2016905	PS 150,0	160,0	0,50
2016501	PS 150,0	165,0	0,10
2096502	PS 150,0	165,0	0,20
2017001	PS 150,0	170,0	0,10
2031715	PS 150,0	170,0	0,15
2021702	PS 150,0	170,0	0,20
2017010	PS 150,0	170,0	1,00
2021705	PS 151,0	179,7	0,60
2071701	PS 152,0	170,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2017030	PS 152,0	170,0	0,30
2015250	PS 152,0	170,0	0,50
2031701	PS 152,0	170,0	1,00
2097001	PS 155,0	170,0	0,10
2000175	PS 155,0	170,0	0,15
2097003	PS 155,0	170,0	0,30
2097005	PS 155,0	170,0	0,50
2017410	PS 156,3	174,0	1,00
2057181	PS 157,0	180,0	0,10
2057183	PS 157,0	180,0	0,30
2031805	PS 158,0	180,0	0,50
2051702	PS 160,0	170,0	0,20
2051710	PS 160,0	170,0	1,00
2017901	PS 160,0	179,0	0,10
2017910	PS 160,0	179,0	1,00
2051801	PS 160,0	180,0	0,10
2016182	PS 160,0	180,0	0,20
2018025	PS 160,0	180,0	0,25
2051803	PS 160,0	180,0	0,30
2038005	PS 160,0	180,0	0,50
2081810	PS 160,0	180,0	1,00
2016185	PS 165,0	179,0	0,15
2065181	PS 165,0	180,0	0,10
2078003	PS 165,0	180,0	0,30
2065185	PS 165,0	180,0	0,50
2018010	PS 165,0	180,0	1,00
2018505	PS 167,0	185,0	0,50
2019015	PS 170,0	190,0	0,15
2017193	PS 170,0	190,0	0,30
2017105	PS 170,0	190,0	0,50
2001901	PS 170,0	190,0	1,00
2017191	PS 170,0	190,0	0,10
2057185	PS 175,0	185,0	1,00
2081901	PS 175,0	190,0	0,10

**SONDERSCHEIBEN NACH DIN 988 PS  
SPECIAL WASHERS ACC. DIN 988 PS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2009095	PS 175,0	190,0	0,15
2017905	PS 175,0	190,0	0,50
2021955	PS 175,0	195,0	0,50
2021951	PS 175,0	195,0	1,00
2017621	PS 176,0	200,0	0,10
2017603	PS 176,0	200,0	0,30
2017605	PS 176,0	200,0	0,50
2017610	PS 176,0	200,0	1,00
2017725	PS 177,2	200,0	0,25
2042001	PS 180,0	200,0	0,10
2018515	PS 180,0	200,0	0,15
2000022	PS 180,0	200,0	0,20
2020003	PS 180,0	200,0	0,30
2020010	PS 180,0	200,0	1,00
2082251	PS 195,0	225,0	0,15

**Dies ist nur ein kleiner Ausschnitt unserer Sonderabmessungen. Wir fertigen auch Teile nach Zeichnung !!! Bitte fragen Sie an.**

*This is only a small part of our special dimensions. We also manufacture parts as per drawing. Please inquire!*

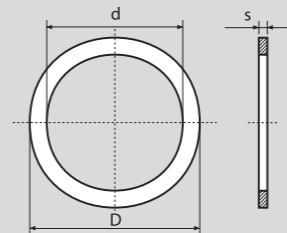
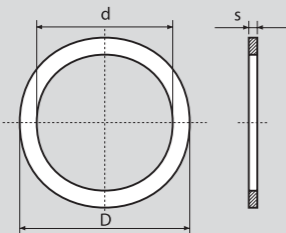
**DURCHMESSERTOLERANZEN PS  
DIAMETER TOLERANCE**

Nennmaßbereich (mm)	d (mm)	D (mm)
Nominal size (mm)	d (mm)	D (mm)
über 3 - 6	-0,030	+0,150
	-0,150	+0,030
über 6 - 10	-0,040	+0,190
	-0,190	+0,040
über 10 - 18	-0,050	+0,230
	-0,230	+0,050
über 18 - 30	-0,065	+0,275
	-0,275	+0,065
über 30 - 50	-0,080	+0,330
	-0,330	+0,080
über 50 - 80	-0,100	+0,400
	-0,400	+0,100
über 80 - 120	-0,120	+0,470
	-0,470	+0,120
über 120 - 180	-0,145	+0,545
	-0,545	+0,145
über 180 - 250	-0,170	+0,630
	-0,630	+0,170

**STÄRKENTOLERANZ PS**

**THICKNESS TOLERANCE**

Nennmaßbereich (mm)	s (mm)
Nominal size (mm)	s (mm)
0,1 - 0,15	-0,03
0,2 - 0,25	-0,04
0,3 - 2,0	-0,05



**SONDERSCHEIBEN NACH DIN 988 SS  
SPECIAL WASHERS ACC. DIN 988 SS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2080812	SS 10,0	18,0	1,2
2021811	SS 12,0	18,0	1,1
2001914	SS 13,0	19,0	1,4
2009225	SS 17,0	22,0	1,5
2072411	SS 17,0	24,0	1,1
2072412	SS 17,0	24,0	1,2
2072413	SS 17,0	24,0	1,3
2072414	SS 17,0	24,0	1,4
2025302	SS 25,0	30,0	2,0
2053320	SS 25,0	33,0	2,0
2003320	SS 25,0	33,0	2,0
2003516	SS 25,0	35,0	1,6
2003519	SS 25,0	35,0	1,9
2093716	SS 26,0	37,0	1,6
2000352	SS 29,0	35,0	2,0
2083525	SS 30,0	38,0	2,5
2064225	SS 30,0	39,0	2,5
2064025	SS 30,0	40,0	2,5
2093802	SS 32,0	38,0	2,0
2063925	SS 32,0	39,0	2,5
2000420	SS 35,0	40,0	2,0
2074025	SS 35,0	40,0	2,5
2004225	SS 36,0	42,0	2,5
2042713	SS 37,9	42,7	1,3
2040452	SS 40,0	45,0	2,5
2014825	SS 41,0	47,0	2,5
2065030	SS 45,0	50,0	3,0
2045225	SS 45,0	52,0	2,5
2055521	SS 45,0	55,0	2,1
2055522	SS 45,0	55,0	2,2
2045523	SS 45,0	55,0	2,3
2045524	SS 45,0	55,0	2,4
2005430	SS 46,0	56,0	3,0
2026030	SS 50,0	60,0	3,0

**SONDERSCHEIBEN NACH DIN 988 SS  
SPECIAL WASHERS ACC. DIN 988 SS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2056030	SS 50,0	60,0	3,0
2016230	SS 53,0	62,0	3,0
2046230	SS 55,0	62,0	3,0
2096830	SS 56,0	68,0	3,0
2066501	SS 57,0	65,0	0,1
2006833	SS 57,0	68,0	3,0
2077230	SS 59,0	72,0	3,0
2006830	SS 60,0	68,0	3,0
2067526	SS 60,0	75,0	2,6
2007230	SS 63,0	72,0	3,0
2008225	SS 63,0	80,0	2,5
2078035	SS 65,0	80,0	3,5
2008235	SS 65,0	82,0	3,5
2088530	SS 65,0	85,0	3,0
2065793	SS 65,0	79,0	3,5
2088030	SS 66,0	80,0	3,0
2090830	SS 67,0	80,0	3,0
2079530	SS 68,0	79,5	3,0
2058535	SS 68,0	85,0	3,5
2088020	SS 69,0	80,0	2,0
2008025	SS 69,0	80,0	2,5
2098030	SS 69,0	80,0	3,0
2038039	SS 70,0	80,0	3,0
2070835	SS 70,0	82,0	3,5
2098535	SS 70,0	85,0	3,5
2018535	SS 71,0	85,0	3,5
2028535	SS 71,0	85,0	3,5
2008535	SS 75,0	85,0	3,5
2089035	SS 75,0	90,0	3,5
2071935	SS 76,0	90,0	3,5
2099035	SS 80,0	90,0	3,5
2069035	SS 82,0	90,0	3,5
2029035	SS 82,0	90,0	3,5
2039535	SS 85,0	95,0	3,5

**SONDERSCHEIBEN NACH DIN 988 SS  
SPECIAL WASHERS ACC. DIN 988 SS**

Artikel-Nr.	d (mm)	D (mm)	s (mm)
Article No.	d (mm)	D (mm)	s (mm)
2089535	SS 86,0	95,0	3,5
2086953	SS 86,0	95,0	3,5
2088135	SS 88,0	100,0	3,5
2070035	SS 90,0	100,0	3,5
2091003	SS 90,0	110,0	3,0
2090107	SS 90,0	107,0	3,5
2041135	SS 94,0	110,0	3,5
2094135	SS 94,0	110,0	3,5
2011529	SS 95,0	115,0	2,9
2032035	SS 102,0	120,0	3,5
2062535	SS 105,0	115,0	3,5
2092535	SS 110,0	125,0	3,5
2081335	SS 110,0	130,0	3,5
2091335	SS 110,0	135,0	3,5
2021335	SS 112,0	130,0	3,5
2023035	SS 115,0	130,0	3,5
2084035	SS 125,0	140,0	3,5
2055035	SS 125,0	145,0	3,5
2041535	SS 134,0	150,0	3,5
2095035	SS 135,0	150,0	3,5
2016035	SS 135,0	160,0	3,5
2015235	SS 152,0	170,0	3,5
2017535	SS 155,0	175,0	3,5
2071835	SS 160,0	180,0	3,5
2018035	SS 160,0	180,0	3,5
2020035	SS 185,0	200,0	3,5
2082035	SS 186,0	200,0	3,5

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Please inquire!

**DURCHMESSERTOLERANZEN SS  
DIMENSION TOLERANCE**

Nennmaßbereich (mm)	d (mm)	D (mm)
Nominal size (mm)	d (mm)	D (mm)
über 3 - 6	-0,030	+0,150
	-0,150	+0,030
über 6 - 10	-0,040	+0,190
	-0,190	+0,040
über 10 - 18	-0,050	+0,230
	-0,230	+0,050
über 18 - 30	-0,065	+0,275
	-0,275	+0,065
über 30 - 50	-0,080	+0,330
	-0,330	+0,080
über 50 - 80	-0,100	+0,400
	-0,400	+0,100
über 80 - 120	-0,120	+0,470
	-0,470	+0,120
über 120 - 180	-0,145	+0,545
	-0,545	+0,145
über 180 - 250	-0,170	+0,630
	-0,630	+0,170

**STÄRKENTOLERANZ SS  
THICKNESS TOLERANCE**

Nennmaßbereich (mm)	s (mm)
Nominal size (mm)	s (mm)
1 - 2,5	0 - (-)0,05
3 - 3,5	0 - (-)0,06
3,5	0 - (-)0,08



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