

Wiper seals



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Description

Wiper rings are used to protect seals in sliding or reciprocating motions, preventing contamination from dirt particles (dust, mud, water, etc.). The lip of the wiper removes even the first dirt from the piston rod.

Such dirt particles can cause damage to hydraulic or pneumatic systems during stroke movement. Even if they appear in good condition, wipers should always be replaced when changing seals.

Some applications are:

- earth moving machinery
- lift trucks
- hydraulic presses

Standard Seal Types

Current types



DAS with ground outer metal case



DP6 without metal insert



DP7 with rubber covered metal insert



DP8 without metal insert, special profile



DRS with rubber covered metal insert



DWR without metal insert, inch sizes

Interchange Table

Dichta types	DAS	DP6	DP7	DP8	DRS	DWR
SIMRIT PRÄDIFA MERKEL GACO POLYPAC	AS AM	A5 P6	P7	ASOB A1 P5	RS	WRM

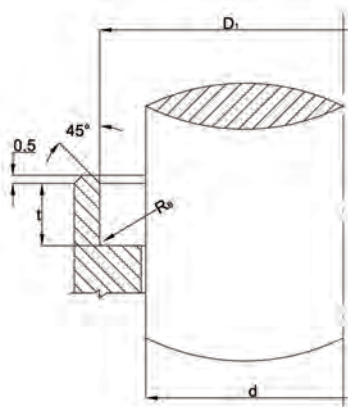
Production and Quality Assurance

Our wiper seals are manufactured according to internal Standard and Quality Assurance Standards ISO 9001:2000.

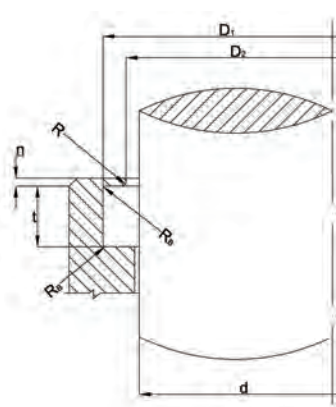
All production phases are checked and all measurements are recorded and stored for tracing.

Installation and Operation

Groove design and tolerances



Groove for wiper seal
with metal insert



Groove for wiper seal
without metal insert

Tolerances

d	D1		D2	t	n	R _B
	with metal insert DP7 DRS DAS	without metal insert DP6 DP8 DWR				
f7 - e9	H8	H11	+ 0 + 0,2	+ 0 + 0,1	± 0,2	0,4 max

Temperature range and maximum speed

Temperature range of wiper seals is usually between -40°C and $+120^{\circ}\text{C}$ and max. speed is at 4 m/s. In most cases the material used is NBR. FPM is used for temperatures up to 200°C . This elastomer is also resistant against aggressive chemicals.

Storage and Handling

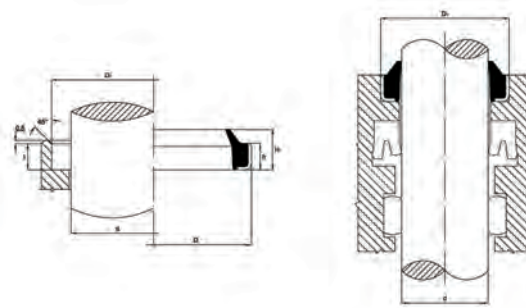
Some storage precautions must be taken in order to avoid deterioration of the material. Wiper seals should be stored in a dust free and dry atmosphere and they must be kept in their original wrapping which should only be opened just before installation. Samples should be repacked after inspection. Excessive humidity will deteriorate some elastomers as well as cause corrosive damage to metal casing.

Do not drop wiper seals on shelves or boxes nor hang seals on hooks, wires or nails, since in either case the sealing lip can be damaged.

Seals should be stored on a first in-first out basis to avoid ageing on the shelf. Avoid storage near sources of heat or near electrical equipment that may generate ozone. Also keep away from direct sunlight.

Standard Sizes

Wiper seals DAS

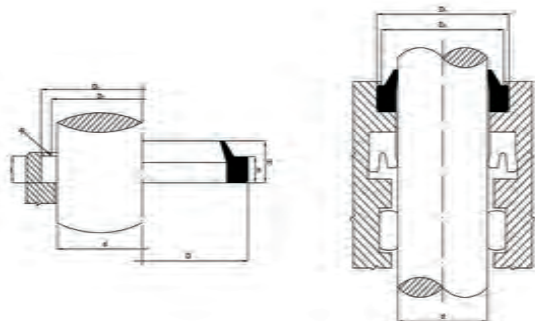


Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm	
		d	D	h	H	D ₁	t
DAS 8/22/3/4,5	8	8	22	3	4,5	22	3
DAS 10/16/3/4,5	10	10	16	3	4,5	16	3
DAS 10/20/5/8	10	10	20	5	8	20	5
DAS 12/20/4/6	12	12	20	4	6	20	4
DAS 12/22/5/8	12	12	22	5	8	22	5
DAS 14/22/3/4	14	14	22	3	4	22	3
DAS 16/22/3/4	16	16	22	3	4	22	3
DAS 16/26/5/8	16	16	26	5	8	26	5
DAS 18/28/7/10	18	18	28	7	10	28	7
DAS 20/28/3,5/5	20	20	28	3,5	5	28	3,5
DAS 20/30/7/10	20	20	30	7	10	30	7
DAS 22/28/5/9	22	22	28	5	9	28	5
DAS 22/32/7/10	22	22	32	7	10	32	7
DAS 25/35/7/10	25	25	35	7	10	35	7
DAS 28/40/7/10	28	28	40	7	10	40	7
DAS 30/40/5/8	30	30	40	5	8	40	5
DAS 30/40/7/10	30	30	40	7	10	40	7
DAS 32/45/7/10	32	32	45	7	10	45	7
DAS 35/45/7/10	35	35	45	7	10	45	7
DAS 36/45/7/10	36	36	45	7	10	45	7
DAS 40/50/5/8	40	40	50	5	8	50	5
DAS 40/50/7/10	40	40	50	7	10	50	7
DAS 40/52/5/8	40	40	52	5	8	52	5
DAS 42/52/7/10	42	42	52	7	10	52	7
DAS 45/55/7/10	45	45	55	7	10	55	7
DAS 45/60/7/10	45	45	60	7	10	60	7
DAS 50/56/5/8	50	50	56	5	8	56	5
DAS 50/60/5/8	50	50	60	5	8	60	5
DAS 50/60/7/10	50	50	60	7	10	60	7
DAS 50/65/5/8	50	50	65	5	8	65	5
DAS 50/65/7/10	50	50	65	7	10	65	7
DAS 52/62/7/10	52	52	62	7	10	62	7
DAS 55/65/7/10	55	55	65	7	10	65	7
DAS 60/70/7/10	60	60	70	7	10	70	7
DAS 63/75/7/10	63	63	75	7	10	75	7
DAS 65/75/7/10	65	65	75	7	10	75	7
DAS 70/80/7/10	70	70	80	7	10	80	7
DAS 75/85/7/10	75	75	85	7	10	85	7
DAS 80/90/7/10	80	80	90	7	10	90	7
DAS 85/95/7/10	85	85	95	7	10	95	7
DAS 90/100/7/10	90	90	100	7	10	100	7
DAS 95/105/7/10	95	95	105	7	10	105	7
DAS 100/110/7/10	100	100	110	7	10	110	7
DAS 105/115/7/10	105	105	115	7	10	115	7
DAS 110/120/7/10	110	110	120	7	10	120	7
DAS 115/125/7/10	115	115	125	7	10	125	7
DAS 120/130/7/10	120	120	130	7	10	130	7
DAS 125/140/9/12	125	125	140	9	12	140	9
DAS 130/145/9/12	130	130	145	9	12	145	9
DAS 140/155/9/12	140	140	155	9	12	155	9
DAS 170/185/10/14	170	170	185	10	14	185	10
DAS 180/195/10/14	180	180	195	10	14	195	10
DAS 200/220/12/16	200	200	220	12	16	220	12
DAS 320/340/12/16	320	320	340	12	16	340	12

DAS wiper seals have a metal case and are installed in open grooves with interference.

Standard Sizes

Wiper seals DP6



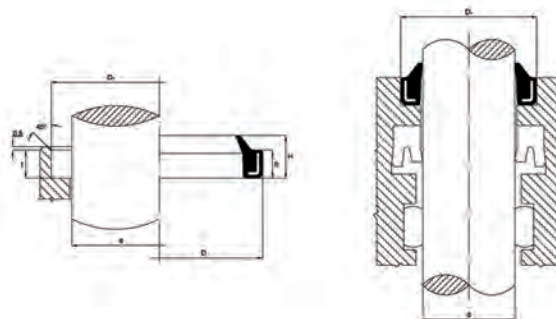
Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm			
		d	D	h	H	D ₁	D ₂	t	R
DP6 20/28/5/7	20	20	28	5	7	28,6	23	5,3	1
DP6 22/30/5/7	22	22	30	5	7	30,6	25	5,3	1
DP6 25/33/5/7	25	25	33	5	7	33,6	28	5,3	1
DP6 28/36/5/7	28	28	36	5	7	36,6	31	5,3	1
DP6 30/38/5/7	30	30	38	5	7	38,6	33	5,3	1
DP6 32/40/5/7	32	32	40	5	7	40,6	35	5,3	1
DP6 35/43/5/7	35	35	43	5	7	43,6	38	5,3	1
DP6 36/44/5/7	36	36	44	5	7	44,6	39	5,3	1
DP6 40/48/5/7	40	40	48	5	7	48,6	43	5,3	1
DP6 42/50/5/7	42	42	50	5	7	50,6	45	5,3	1
DP6 45/55/5/7	45	45	55	5	7	55,6	48	5,3	1
DP6 50/58/5/7	50	50	58	5	7	58,6	53	5,3	1
DP6 50/60/5/7	50	50	60	5	7	60,6	53	5,3	1
DP6 55/65/5/7	55	55	65	5	7	65,6	58	5,3	1
DP6 56/66/5/7	56	56	66	5	7	66,6	59	5,3	1
DP6 60/70/5/7	60	60	70	5	7	70,6	63	5,3	1
DP6 60/68/5/7	60	60	68	5	7	68,6	63	5,3	1
DP6 63/73/5/7	63	63	73	5	7	73,6	66	5,3	1
DP6 65/75/5/7	65	65	75	5	7	75,6	68	5,3	1
DP6 70/80/5/7	70	70	80	5	7	80,6	73	5,3	1
DP6 75/87/7/12	75	75	87	7	12	87,2	81	7,1	1
DP6 80/92/7/12	80	80	92	7	12	92,2	86	7,1	1
DP6 85/97/7/12	85	85	97	7	12	97,2	91	7,1	1
DP6 90/102/7/12	90	90	102	7	12	102,2	96	7,1	1
DP6 95/107/7/12	95	95	107	7	12	107,2	101	7,1	1
DP6 100/112/7/12	100	100	112	7	12	112,2	106	7,1	1
DP6 110/122/7/12	110	110	122	7	12	122,2	116	7,1	1
DP6 115/127/7/12	115	115	127	7	12	127,2	121	7,1	1
DP6 120/132/7/12	120	120	132	7	12	132,2	126	7,1	1
DP6 125/140/10/16	125	125	140	10	16	140	132,6	10,1	1,5
DP6 140/155/10/16	140	140	155	10	16	155	147,6	10,1	1,5
DP6 150/165/10/16	150	150	165	10	16	165	157,6	10,1	1,5
DP6 160/175/10/16	160	160	175	10	16	175	167,6	10,1	1,5
DP6 180/200/10/18	180	180	200	10	18	200	190	10,2	3
DP6 200/220/10/18	200	200	220	10	18	220	210	10,2	3
DP6 240/260/10/18	240	240	260	10	18	260	250	10,2	3

DP6 wiper seals do not have any metal insert and are elastically installed in recessed grooves.



Standard Sizes

Wiper seals DP7

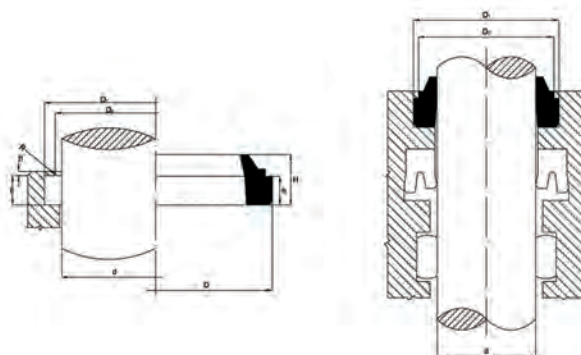


Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm	
		d	D	h	H	D ₁	t
DP7 8/14/3,5/5	8	8	14	3,5	5	14	3,5
DP7 10/16/3,5/5	10	10	16	3,5	5	16	3,5
DP7 12/18/3,5/5	12	12	18	3,5	5	18	3,5
DP7 14/20/3,5/5	14	14	20	3,5	5	20	3,5
DP7 15/21/3,5/5	15	15	21	3,5	5	21	3,5
DP7 16/22/3,5/5	16	16	22	3,5	5	22	3,5
DP7 16/24/3,5/5	16	16	24	3,5	5	24	3,5
DP7 17/22/5/7	17	17	22	5	7	22	5
DP7 18/28/5/7	18	18	28	5	7	28	5
DP7 20/30/5/7	20	20	30	5	7	30	5
DP7 22/32/5/7	22	22	32	5	7	32	5
DP7 25/35/5/7	25	25	35	5	7	35	5
DP7 28/38/5/7	28	28	38	5	7	38	5
DP7 30/40/5/7	30	30	40	5	7	40	5
DP7 32/42/5/7	32	32	42	5	7	42	5
DP7 35/45/7/10	35	35	45	7	10	45	7
DP7 36/46/5/7	36	36	46	5	7	46	5
DP7 40/50/5/8	40	40	50	5	8	50	5
DP7 42/52/5/7	42	42	52	5	7	52	5
DP7 45/55/5/7	45	45	55	5	7	55	5
DP7 50/56/5/7	50	50	56	5	7	56	5
DP7 50/60/5/7	50	50	60	5	7	60	5
DP7 55/65/5/7	55	55	65	5	7	65	5
DP7 56/66/5/7	56	56	66	5	7	66	5
DP7 60/70/5/7	60	60	70	5	7	70	5
DP7 63/73/5/7	63	63	73	5	7	73	5
DP7 65/75/5/7	65	65	75	5	7	75	5
DP7 70/80/5/7	70	70	80	5	7	80	5
DP7 75/83/7/10	75	75	83	7	10	83	7
DP7 80/88/7/10	80	80	88	7	10	88	7
DP7 90/100/5/7	90	90	100	5	7	100	5

DP7 wiper seals have a metal insert and are installed in open grooves with interference.

Standard Sizes

Wiper seals DP8

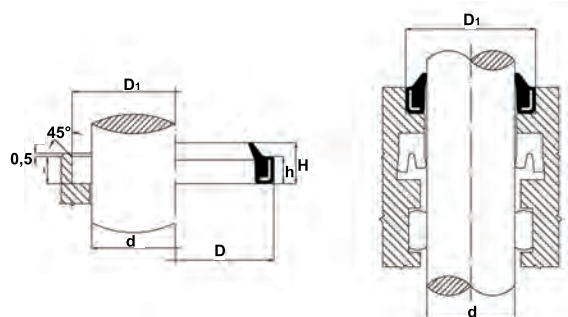


Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm			
		d	D	h	H	D ₁	D ₂	t	R
DP8 8/16/4/7	8	8	16	4	7	16	14	4,15	1
DP8 10/18/4/7	10	10	18	4	7	18	16	4,15	1
DP8 12/20/4/7	12	12	20	4	7	20	18	4,15	1
DP8 14/22/4/7	14	14	22	4	7	22	20	4,15	1
DP8 16/24/4/7	16	16	24	4	7	24	22	4,15	1
DP8 18/26/4/7	18	18	26	4	7	26	24	4,15	1
DP8 20/28/4/7	20	20	28	4	7	28	26	4,15	1
DP8 22/30/4/7	22	22	30	4	7	30	28	4,15	1
DP8 25/33/4/7	25	25	33	4	7	33	31	4,15	1
DP8 28/36/4/7	28	28	36	4	7	36	34	4,15	1
DP8 30/38/4/7	30	30	38	4	7	38	36	4,15	1
DP8 32/40/4/7	32	32	40	4	7	40	38	4,15	1
DP8 35/43/4/7	35	35	43	4	7	43	41	4,15	1
DP8 36/44/4/7	36	36	44	4	7	44	42	4,15	1
DP8 40/48/4/7	40	40	48	4	7	48	46	4,15	1
DP8 42/50/4/7	42	42	50	4	7	50	48	4,15	1
DP8 45/53/4/7	45	45	53	4	7	53	51	4,15	1
DP8 48/56/4/7	48	48	56	4	7	56	54	4,15	1
DP8 50/58/4/7	50	50	58	4	7	58	56	4,15	1
DP8 55/63/4/7	55	55	63	4	7	63	61	4,15	1
DP8 56/64/4/7	56	56	64	4	7	64	62	4,15	1
DP8 60/68/4/7	60	60	68	4	7	68	66	4,15	1
DP8 63/71/4/7	63	63	71	4	7	71	69	4,15	1
DP8 65/73/4/7	65	65	73	4	7	73	71	4,15	1
DP8 70/78/4/7	70	70	78	4	7	78	76	4,15	1
DP8 80/88/4/7	80	80	88	4	7	88	86	4,15	1
DP8 90/98/4/7	90	90	98	4	7	98	96	4,15	1
DP8 100/108/4/7	100	100	108	4	7	108	106	4,15	1
DP8 110/122/5,5/10	110	110	122	5,5	10	122	119	5,65	1,5
DP8 120/132/5,5/10	120	120	132	5,5	10	132	129	5,65	1,5
DP8 125/137/5,5/10	125	125	137	5,5	10	137	134	5,65	1,5
DP8 140/152/5,5/10	140	140	152	5,5	10	152	149	5,65	1,5
DP8 160/172/5,5/10	160	160	172	5,5	10	172	169	5,65	1,5
DP8 180/192/5,5/10	180	180	192	5,5	10	192	189	5,65	1,5
DP8 200/212/5,5/10	200	200	212	5,5	10	212	209	5,65	1,5
DP8 220/235/6,5/13	220	220	235	6,5	13	235	231	6,65	2
DP8 250/265/6,5/13	250	250	265	6,5	13	265	261	6,65	2

DP8 wiper seals do not have any metal insert and are installed with slight interference in recessed grooves, so that the wiper can be locked into position in both axial and radial directions.

Standard Sizes

Wiper seals **DRS**

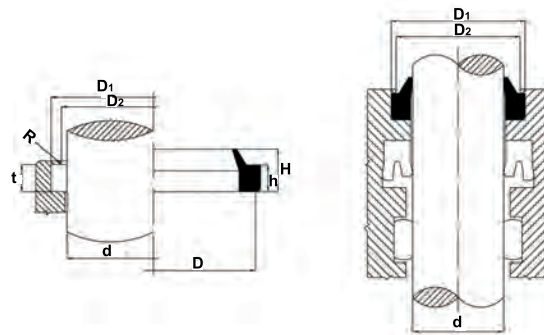


Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm	
		d	D	h	H	D ₁	t
DRS 6/13/3/4,5	6	6	13	3	4,5	13	3
DRS 10/20/5/8	10	10	20	5	8	20	5
DRS 12/22/5/8	12	12	22	5	8	22	5
DRS 15/25/5/8	15	15	25	5	8	25	5
DRS 16/26/5/8	16	16	26	5	8	26	5
DRS 18/28/5/8	18	18	28	5	8	28	5
DRS 20/30/7/10	20	20	30	7	10	30	7
DRS 22/32/7/10	22	22	32	7	10	32	7
DRS 24/35/5/8	24	24	35	5	8	35	5
DRS 25/35/7/10	25	25	35	7	10	35	7
DRS 26/35/7/10	26	26	35	7	10	35	7
DRS 28/40/7/10	28	28	40	7	10	40	7
DRS 30/40/7/10	30	30	40	7	10	40	7
DRS 32/45/7/10	32	32	45	7	10	45	7
DRS 35/45/7/10	35	35	45	7	10	45	7
DRS 36/45/7/10	36	36	45	7	10	45	7
DRS 38/48/7/10	38	38	48	7	10	48	7
DRS 40/50/7/10	40	40	50	7	10	50	7
DRS 42/52/7/10	42	42	52	7	10	52	7
DRS 45/55/7/10	45	45	55	7	10	55	7
DRS 48/60/7/10	48	48	60	7	10	60	7
DRS 50/60/7/10	50	50	60	7	10	60	7
DRS 52/62/7/10	52	52	62	7	10	62	7
DRS 55/65/7/10	55	55	65	7	10	65	7
DRS 60/70/7/10	60	60	70	7	10	70	7
DRS 65/75/7/10	65	65	75	7	10	75	7
DRS 70/80/7/10	70	70	80	7	10	80	7
DRS 75/85/7/10	75	75	85	7	10	85	7
DRS 80/90/7/10	80	80	90	7	10	90	7
DRS 85/95/7/10	85	85	95	7	10	95	7
DRS 90/100/7/10	90	90	100	7	10	100	7
DRS 95/105/7/10	95	95	105	7	10	105	7
DRS 100/110/7/10	100	100	110	7	10	110	7
DRS 105/115/7/10	105	105	115	7	10	115	7
DRS 110/120/7/10	110	110	120	7	10	120	7
DRS 115/125/7/10	115	115	125	7	10	125	7
DRS 120/130/7/10	120	120	130	7	10	130	7
DRS 125/140/9/12	125	125	140	9	12	140	9
DRS 130/145/9/12	130	130	145	9	12	145	9
DRS 140/155/9/12	140	140	155	9	12	155	9
DRS 150/165/9/12	150	150	165	9	12	165	9
DRS 160/175/9/12	160	160	175	9	12	175	9
DRS 170/185/10/14	170	170	185	10	14	185	10
DRS 180/195/10/14	180	180	195	10	14	195	10
DRS 200/220/12/16	200	200	220	12	16	220	12
DRS 220/240/12/16	220	220	240	12	16	240	12

DRS wiper seals have a metal insert and are installed in open grooves with interference.

Standard Sizes

Wiper seals DWR



Reference	Rod diameter mm	Wiper dimensions mm				Bore dimensions mm			
		d	D	h	H	D ₁	D ₂	t	R
DWR 047070	12	12	18	3,5	5	18,6	15	3,8	1
DWR 051074	13	13	19	3,5	5	19,6	16	3,8	1
DWR 055082	14	14	21	3,5	5	21,6	18	3,8	1
DWR 059082	15	15	21	3,5	5	21,6	18	3,8	1
DWR 062087	16	16	22	3,5	5	22,6	19	3,8	1
DWR 066094	17	17	23	3,5	5	23,6	20	3,8	1
DWR 070094	18	18	24	3,5	5	24,6	21	3,8	1
DWR 074110	19	19	28	5	7	28,6	22	5,3	1
DWR 078110	20	20	28	5	7	28,6	23	5,3	1
DWR 086118	22	22	30	5	7	30,6	25	5,3	1
DWR 094125	24	24	32	5	7	32,6	27	5,3	1
DWR 098129	25	25	33	5	7	33,6	28	5,3	1
DWR 102133	26	26	34	5	7	34,6	29	5,3	1
DWR 106137	27	27	35	5	7	35,6	30	5,3	1
DWR 110141	28	28	36	5	7	36,6	31	5,3	1
DWR 118149	30	30	38	5	7	38,6	33	5,3	1
DWR 125157	32	32	40	5	7	40,6	35	5,3	1
DWR 129161	33	33	41	5	7	41,6	36	5,3	1
DWR 137169	35	35	43	5	7	43,6	38	5,3	1
DWR 141173	36	36	44	5	7	44,6	39	5,3	1
DWR 149181	38	38	46	5	7	46,6	41	5,3	1
DWR 157188	40	40	48	5	7	48,6	43	5,3	1
DWR 165196	42	42	50	5	7	50,6	45	5,3	1
DWR 177208	45	45	53	5	7	53,6	48	5,3	1
DWR 181212	46	46	54	5	7	54,6	49	5,3	1
DWR 188220	48	48	56	5	7	56,6	51	5,3	1
DWR 196228	50	50	58	5	7	58,6	53	5,3	1
DWR 208240	53	53	61	5	7	61,6	56	5,3	1
DWR 216248	55	55	63	5	7	63,6	58	5,3	1
DWR 220251	56	56	64	5	7	64,6	59	5,3	1
DWR 236267	60	60	68	5	7	68,6	63	5,3	1
DWR 248279	63	63	71	5	7	71,6	66	5,3	1
DWR 255287	65	65	73	5	7	73,6	68	5,3	1
DWR 275307	70	70	78	5	7	78,6	73	5,3	1
DWR 275322	70	70	82	7	12	82,2	76	7,1	1
DWR 287318	73	73	81	5	7	81,6	76	5,3	1
DWR 295326	75	75	83	5	7	83,6	78	5,3	1
DWR 295345	75	75	87	7	12	87,2	81	7,1	1
DWR 307362	78	78	92	7	12	92,2	85	7,1	1
DWR 314346	80	80	88	5	7	88,6	83	5,3	1
DWR 314362	80	80	92	7	12	92,2	86	7,1	1
DWR 326358	83	83	91	5	7	91,6	86	5,3	1
DWR 334366	85	85	93	5	7	93,6	88	5,3	1
DWR 334381	85	85	97	7	12	97,2	91	7,1	1
DWR 346393	88	88	100	7	12	100,2	94	7,1	1
DWR 354401	90	90	102	7	12	102,2	96	7,1	1
DWR 374421	95	95	107	7	12	107,2	101	7,1	1
DWR 393440	100	100	112	7	12	112,2	106	7,1	1

DWR wiper seals do not have any metal insert and are elastically installed in recessed grooves.

