

# SANITARY GASKETS for pipe couplings





*The safe choice for seals and moulded parts used in hydraulics, pneumatics, precision engineering and food/medical industries.*

## History and concept

In M Seals we specialize in seals for industrial use. We cover the whole spectrum from the finest precision seals to the largest heavy duty shaft seals and packings.

Our products address the needs of customers that wish to have a broad range of products and solutions at hand.

The company was founded in 1963 as Mogens Christensen, Ingeniør- & Handelsfirma A/S.

We are undergoing a rapid period of development and we now have 3,300 m<sup>2</sup> of offices, lab, production and warehouses at our disposal.

Our branch in Halmstad, Sweden, has grown significantly and our branch in China, has given us an entry point into this for M Seals already large market.

In 2007 M Seals became a part of the Diploma PLC group. This has opened new possibilities for our company, e.g. the cooperation with the American Hercules Sealing Products.

## Knowledge

At M Seals, we have developed extensive knowledge of seals and their applications, including their composition, lifetime and suitability for a specific job.

The right choice of seals minimizes the risk of unexpected breakdowns. Our range of seals is wide allowing us to provide multiple solutions. M Seals range alone covers about 50,000 items, of which a large proportion is stocked. We often cooperate with customers in the design of special solutions. We have close relationship with many of the world's leading manufacturers of sealing systems and, in cooperation with us, they provide their knowledge and experience to our customers.

## Sanitary gaskets for pipe couplings

Specifically for the use in pipe systems in the food, pharma and chemical process industries, we stock a range of gaskets for most types of couplings like DS, DIN11851, SMS1149, ISO2853 as well as clamp-types like ISO2852, BS4825/3, ISO1127, DIN32676 and others.

Most of them can be supplied in NBR, EPDM, FPM, PTFE, Silicone and Kalrez, all meeting the requirements of FDA for use with foodstuff. All standard materials are furthermore tested and certified against USP Class VI.

## GASKET SELECTION AND MATERIAL GUIDE

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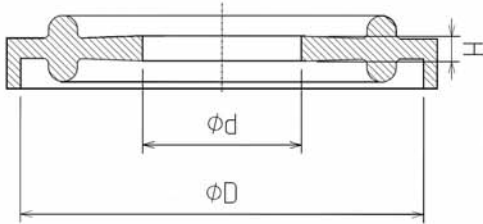
The choice of seal material will depend on the material being processed and the operating conditions. The table below is a general guidance on seal material selection. If any doubt please contact our sales office.

- EPDM:** Resistance is good to alcohol, ketones, mineral acids and alkalis. Especially suitable for CIP. Not suitable for use with oils and hydrocarbons. Temperature range from -50°C to 150°C.
- FPM:** Particularly resistant to acids, solvents and most commonly used chemicals in the food industry. Unsuitable for ketones, esters, hot concentrated caustic solutions, and steam. Temperature range from -30°C to 200°C.
- NBR:** Resistance is good to oils, mineral fats and water. Not recommended for CIP. Temperature range -40°C to 100°C.
- VMQ:** High chemical resistance to most media encountered in the food industry. Good resistance to oxidising agents, alkali solutions, and animal / vegetable fats. Not recommended for strong acids and bases. Temperature range from -60°C to 200°C.
- PTFE:** Almost universal chemical inertness. Suffers from cold flow and hence must not be over tightened. Temperature range from -100°C to 250°C.
- KALREZ:** Almost universal chemical inertness. Especially suitable for CIP, SIP and WFI systems. Temperature range -20°C to 260°C.
- ENVELOPE:** Almost universal chemical inertness. This gasket is a composite construction being a PTFE outer case, in contact with the media, and a FPM filler that provides elasticity. Temperature range from -30°C to 200°C.

<b>Material code</b>	<b>Material</b>	<b>Approval(s)</b>	<b>Colour</b>
EPDM/301	EPDM	FDA CFR21:177.2600/USP Class VI/3A	Black
EPDM/400	EPDM	FDA CFR21:177.2600/USP Class VI/3A	Black
FPM	FPM	FDA CFR21:177.2600	Black
FPM/300	FPM	FDA CFR21:177.2600/USP Class VI/3A	Green
FPM/305	FPM	FDA CFR21:177.2600	Black
KALREZ 6230	KALREZ	FDA CFR21:177.2600/USP Class VI/3A	Black
NBR/001	NBR	FDA CFR21:177.2600/USP Class VI/3A	Black
NBR/300	NBR	FDA CRF21:177.2600	Blue
PTFE/598	PTFE	FDA CFR21:177.1550/USP Class VI/3A	White
PTFE ENVELOPE	PTFE/FPM*	FDA CFR21:177.1550/2600	White/black
VMQ/300	VMQ	FDA CFR21:177.2600	White
VMQ/600	VMQ/PLATINUM	FDA CFR21:177.2600/USP Class VI/3A	Transparent

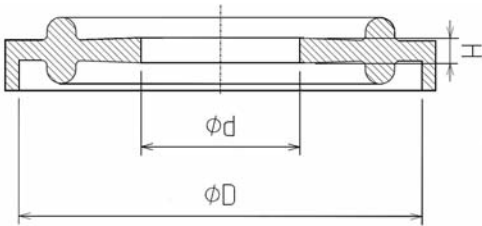
\*Also available with FDA CFR21:177.1550/2600/USP Class VI/3A. Colour: White/green.

## DIN 32676



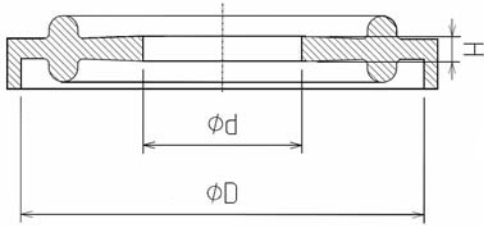
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DN	d BORE	D	H	FLANGE DIA.	EPDM/400	VMQ/300	VMQ/600	FPM/300	NBR/001	PTFE/598	PTFE ENVELOPE	KALREZ
6	6,2	34	2,1	34			425618					
8\1	6,2	21,84	2	25,4	425557		425674			425472		
8\2	8	21,84	2	25,4	425670			425669				
10\3	8	21,84	2	25,4						425471		
8\4	8,2	21,84	2,1	25,4	425555		425554					
8	8,2	34	2,1	34			425676					
12,7\1	9,6	21,84	2	25,4	425558		425559					
10	10	34	2,1	34						425700		
10	10,2	34	2,1	34	425466	425663	425643	425498				
12,7	10,5	21,84	2	25,4	425449	425456		425452		425661		425442
8\3	10,5	21,84	2	25,4	425604							
14\3	14,2	21,84	2	25,4	425551		425552					
19,05	15,9	21,84	2	25,4	425447	425458	425553	425457				425443
18\1	16	21,84	2	25,4	425495			425617		425470	425494	
15	16,2	34	2,1	34	425467	425662	425644	425444		425626		
15	18,3	50,5	2,1	50,5	425576		425582	425679				
20	20,2	34	2,1	34	425465	425474	425645	425445	425468	425625		
1"	22,3	50,5	2,1	50,5	425744		425747	425750				
20	23,9	50,5	2,1	50,5	425595		425583	425680		425610		
25	26,2	50,5	2,1	50,5	425475	425477	425646	425476		425453	425714	
25	29,9	50,5	2,1	50,5	425597		425584	425681				
32	32,2	50,5	2,1	50,5	425478		425619	425479		425624	425703	
1½"	35	50,5	2,1	50,5	425745		425748	425751				
40	38,2	50,5	2,1	50,5	425480	425481	425648	425482		425454		
32	38,6	64	2,1	64	425598		425585	425682		425621		
40	44,5	64	2,1	64	425577		425579	425683				
2"	47,7	64	2,1	64	425746		425749	425752				
50	50,2	64	2,1	64	425483	425484	425649	425493		425455		
50	56,5	77,5	2,1	77,5	425599		425586	425684		425606	425719	
63,5	60,5	77,5	2,1	77,5	425407	425393	425543	425434	425406	425523	425533	425437
65	66,2	91	2,1	91	425485	425499	425650	425486				
65	72,3	91	2,1	91	425628		425587	425685		425701		
76,1	73,1	91	2,1	91	425409	425394	425544	425433	425408	425524	425534	
80	81,2	106	2,1	106	425487	425664	425651	425711	425463			
80	84,5	106	2,1	106	425635		425588	425686		425702		
100	100,2	119	2,1	119	425489	425504	425652	425488				
100	109,9	130	2,1	130	425630		425589					
125	125,2	155	2,1	155	425636							
152,4	147,2	167	2,1	167	425640		425655					
150	150,2	183	2,1	183	425637			425490				
168,3	163,3	183	2,1	183	425399				425726	425526		
200	200,2	233,5	2,1	233,5	425627				425720		425688	
200	214,1	233,5	2,1	233,5	425632		425591					
219,1	214,1	233,5	2,1	233,5				425732	425427	425658	425492	
		25,4	2	25,4	425614		425550			425473		
		34	2,1	34	425662		425560					
		50,5	2,1	50,5	425663		425561			425547		
		77,5	2,1	77,5	425565							
		91	2,1	91	425566							

## ISO 2852



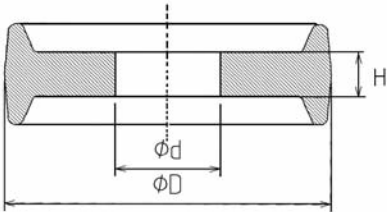
ORDERING CODES ISO 2852												
ITEM NUMBERS												
DN	d BORE	D	H	FLANGE DIA.	EPDM/400	VMQ/300	VMQ/600	FPM/300	NBR/001	PTFE/598	PTFE ENVELOPE	KALREZ
17,2	15,4	34	2,1	34								
21,3	19,5	34	2,1	34								
25	22,8	50,5	2,1	50,5	425401	425390	425540	425396	425400	425522	425530	425435
33,7	31,5	50,5	2,1	50,5								
38	35,6	50,5	2,1	50,5						425521		
38	35,8	50,5	2,1	50,5	425403	425391	425541	425397	425402		425531	425432
40	37,8	64	2,1	64								
51	48,8	64	2,1	64	425405	425392	425542	425398	425404	425520	425532	425436
63,5	60,5	77,5	2,1	77,5	425407	425393	425543	425434	425406	425523	425533	425437
70	67	91	2,1	91								
76,1	73,1	91	2,1	91	425409	425394	425544	425433	425408	425524	425534	
88,9	85,1	106	2,1	106	425451					425622		
101,6	97,8	119	2,1	119	425411	425395	425545	425446	425410	425525	425535	
114,3	109,3	130	2,1	130	425638		425653	425733	425729	425528		
127	120,2	144,5	2,1	144,5	425639		425654					
139,7	135,9	155	2,1	155	425735			425734	425736			
152,4	147,2	167	2,1	167	425640		425655					
168,3	163,3	183	2,1	183	425399				425726	425526		
203,2	198,2	217,5	2,1	217,5	425641		425656					
200	214,1	233,5	2,1	233,5	425632		425591					
219,1	214,1	233,5	2,1	233,5				425732	425427	425658	425492	
254	250,2	268	2,1	268	425642		425657					
304,8	300	319	2,1	319		425678						
		25,4	2	25,4	425614		425550			425473		
		34	2,1	34	425562		425560					
		50,5	2,1	50,5	425563		425561			425547		
		77,5	2,1	77,5	425565							
		91	2,1	91	425566							

## ISO 1127



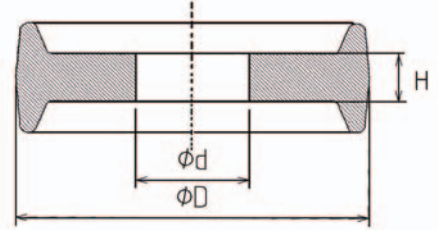
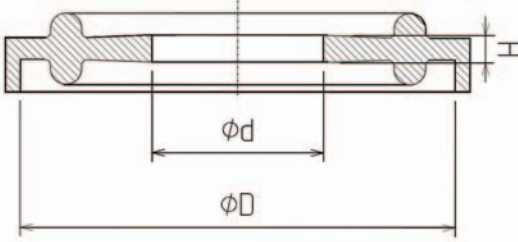
ORDERING CODES ISO 1127 ITEM NUMBERS												
DN	d BORE	D	H	FLANGE DIA.	EPDM/400	VMQ/300	VMQ/600	FPM/300	NBR/001	PTFE/598	PTFE ENVELOPE	KALREZ
8	10,3	34	2,1	34								
8	10,5	50,5	2,1	50,5	425593		425580					
10	13,5	50,5	2,1	50,5						425609		
10\1	14,2	34	2,1	34	425687							
10	14,2	50,5	2,1	50,5	425594		425581					
15\1	18,1	34	2,1	34			425596					
15	18,1	50,5	2,1	50,5						425607		
15	18,3	50,5	2,1	50,5	425576		425582	425679				
20	22,9	50,5	2,1	50,5								
20	23,9	50,5	2,1	50,5	425595		425583	425680		425610		
25	29,7	50,5	2,1	50,5						425611		
25	29,9	50,5	2,1	50,5	425597		425584	425681				
25	30,5	50,5	2,1	50,5								
32	38,6	64	2,1	64	425598		425585	425682		425621		
40	44,3	64	2,1	64						425612		
40	44,5	64	2,1	64	425577		425579	425683				
50	50,3	77,5	2,1	77,5								
50	56,5	77,5	2,1	77,5	425599		425586	425684		425606	425719	
65	72,3	91	2,1	91	425628		425587	425685		425701		
65	72,9	91	2,1	91								
80	80,2	106	2,1	106								
80	84,5	106	2,1	106	425635		425588	425686		425702		
100	109,9	130	2,1	130	425630		425589					
150	163,3	182,7	2,1	182,7	425631		425590		425713			
200	214,1	233,5	2,1	233,5	425632		425591					
219,1	214,1	233,5	2,1	233,5				425732	425427	425658	425492	
250	266,5	287,5	2,1	287,5	425633		425629					
300	316,1	338,3	2,1	338,3	425634		425592					
		25,4	2	25,4	425614		425550			425473		
		34	2,1	34	425562		425560					
		50,5	2,1	50,5	425563		425561			425547		
		77,5	2,1	77,5	425565							
		91	2,1	91	425566							

## MINI CLAMP



ORDERING CODES MINI CLAMP ITEM NUMBERS												
DN	d BORE	D	H	FLANGE DIA.	EPDM/400	VMQ/300	VMQ/600	FPM/300	NBR/001	PTFE/598	PTFE ENVELOPE	KALREZ
4	4	21,84	2	25,4	425675							
4\1	4,2	21,84	2	25,4	425556		425571					
8\1	6,2	21,84	2	25,4	425557		425674			425472		
	6,22	21,84	2	25,4								
8\2	8	21,84	2	25,4	425670			425669				
10\3	8	21,84	2	25,4						425471		
8\4	8,2	21,84	2,1	25,4	425555		425554					
12,7\1	9,6	21,84	2	25,4	425558		425559					
12\2	9,7	21,84	2	25,4						425469		
10\2	10	21,84	2	25,4	425672			425671				
12\2	10	21,84	2	25,4							425613	
12,7	10,5	21,84	2	25,4	425449	425456		425452		425661		425442
8\3	10,5	21,84	2	25,4	425604							
11,3	11,3	21,84	2	25,4	425706			425704				
12\1	12	21,84	2	25,4	425668			425699				
14\1	12	21,84	2	25,4						425623		
10\1	12,3	21,84	2	25,4	425496							
13	13	21,84	2	25,4	425464							
14\2	14	21,84	2	25,4	425666			425667				
14\3	14,2	21,84	2	25,4	425551		425552					
14,5	14,5	21,84	2	25,4				425705				
19,05	15,9	21,84	2	25,4	425447	425458	425553	425457				425443
18\1	16	21,84	2	25,4	425495			425617		425470	425494	
		25,4	2	25,4	425614		425550			425473		

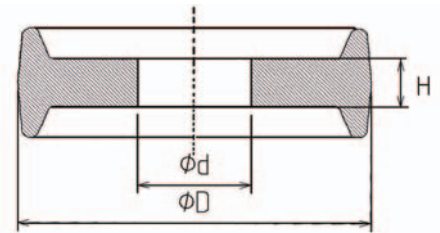
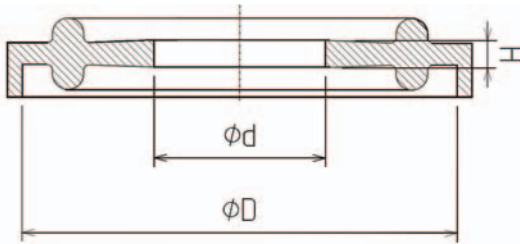
## CLAMP GASKET OVERVIEW



ORDERING CODES CLAMP GASKETS																
ITEM NUMBERS											NORM					
DN	d BORE	D	H	FLANGE DIA.	EPDM/ 400	VMQ/ 300	VMQ/ 600	FPM/ 300	NBR/ 001	PTFE/ 598	PTFE ENVELOPE	KALREZ	MINI CLAMP	ISO2852	ISO1127	DIN32676
4	4	21,84	2	25,4	425675								X			
4\1	4,2	21,84	2	25,4	425556		425571						X			
6	6,2	34	2,1	34			425618									X
8\1	6,2	21,84	2	25,4	425557		425674			425472			X			X
	6,22	21,84	2	25,4									X			
8\2	8	21,84	2	25,4	425670			425669					X			X
10\3	8	21,84	2	25,4						425471			X			X
8\4	8,2	21,84	2,1	25,4	425555		425554						X			X
8	8,2	34	2,1	34			425676									X
12,7\1	9,6	21,84	2	25,4	425558		425559						X			X
12\2	9,7	21,84	2	25,4						425469			X			
10\2	10	21,84	2	25,4	425672			425671					X			
12\2	10	21,84	2	25,4							425613		X			
10	10	34	2,1	34						425700						X
10	10,2	34	2,1	34	425466	425663	425643	425498								X
8	10,3	34	2,1	34											X	
8	10,5	50,5	2,1	50,5	425593		425580								X	
12,7	10,5	21,84	2	25,4	425449	425456		425452		425661		425442	X			X
8\3	10,5	21,84	2	25,4	425604								X			X
11,3	11,3	21,84	2	25,4	425706			425704					X			
12\1	12	21,84	2	25,4	425668			425699					X			
14\1	12	21,84	2	25,4						425623			X			
10\1	12,3	21,84	2	25,4	425496								X			
13	13	21,84	2	25,4	425464								X			
10	13,5	50,5	2,1	50,5						425609					X	
14\2	14	21,84	2	25,4	425666			425667					X			
14\3	14,2	21,84	2	25,4	425551		425552						X			X
10\1	14,2	34	2,1	34	425687										X	
10	14,2	50,5	2,1	50,5	425594		425581								X	
14,5	14,5	21,84	2	25,4				425705					X			
17,2	15,4	34	2,1	34										X		
19,05	15,9	21,84	2	25,4	425447	425458	425553	425457				425443	X			X
18\1	16	21,84	2	25,4	425495			425617		425470	425494		X			X
15	16,2	34	2,1	34	425467	425662	425644	425444		425626						X
15\1	18,1	34	2,1	34			425596								X	
15	18,1	50,5	2,1	50,5						425607					X	
15	18,3	50,5	2,1	50,5	425576		425582	425679							X	X
21,3	19,5	34	2,1	34										X		
20	20,2	34	2,1	34	425465	425474	425645	425445	425468	425625						X
1"	22,3	50,5	2,1	50,5	425744		425747	425750								X
25	22,8	50,5	2,1	50,5	425401	425390	425540	425396	425400	425522	425530	425435		X		
20	22,9	50,5	2,1	50,5											X	
20	23,9	50,5	2,1	50,5	425595		425583	425680		425610					X	X
25	26,2	50,5	2,1	50,5	425475	425477	425646	425476		425453	425714					X
25	29,7	50,5	2,1	50,5						425611					X	
25	29,9	50,5	2,1	50,5	425597		425584	425681							X	X
25	30,5	50,5	2,1	50,5											X	
33,7	31,5	50,5	2,1	50,5										X		

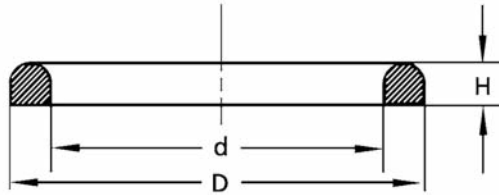


## CLAMP GASKET OVERVIEW



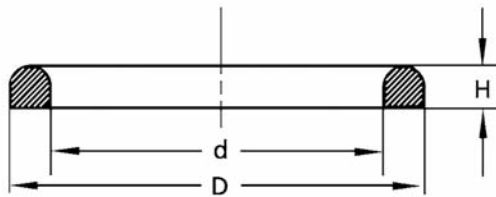
ORDERING CODES CLAMP GASKETS																
ITEM NUMBERS											NORM					
DN	d BORE	D	H	FLANGE DIA.	EPDM/400	VMQ/300	VMQ/600	FPM/300	NBR/001	PTFE/598	PTFE ENVELOPE	KALREZ	MINI CLAMP	ISO2852	ISO1127	DIN32676
32	32,2	50,5	2,1	50,5	425478		425619	425479		425624	425703					X
1½"	35	50,5	2,1	50,5	425745		425748	425751								X
38	35,6	50,5	2,1	50,5						425521				X		
38	35,8	50,5	2,1	50,5	425403	425391	425541	425397	425402		425531	425432		X		
40	37,8	64	2,1	64										X		
40	38,2	50,5	2,1	50,5	425480	425481	425648	425482		425454						X
32	38,6	64	2,1	64	425598		425585	425682		425621					X	X
40	44,3	64	2,1	64						425612					X	
40	44,5	64	2,1	64	425577		425579	425683							X	X
2"	47,7	64	2,1	64	425746		425749	425752								X
51	48,8	64	2,1	64	425405	425392	425542	425398	425404	425520	425532	425436		X		
50	50,2	64	2,1	64	425483	425484	425649	425493		425455						X
50	50,3	77,5	2,1	77,5											X	
50	56,5	77,5	2,1	77,5	425599		425586	425684		425606	425719				X	X
63,5	60,5	77,5	2,1	77,5	425407	425393	425543	425434	425406	425523	425533	425437		X		X
65	66,2	91	2,1	91	425485	425499	425650	425486								X
70	67	91	2,1	91										X		
65	72,3	91	2,1	91	425628		425587	425685		425701					X	X
65	72,9	91	2,1	91											X	
76,1	73,1	91	2,1	91	425409	425394	425544	425433	425408	425524	425534			X		X
80	80,2	106	2,1	106											X	
80	81,2	106	2,1	106	425487	425664	425651	425711	425463							X
80	84,5	106	2,1	106	425635		425588	425686		425702					X	X
88,9	85,1	106	2,1	106	425451					425622				X		
101,6	97,8	119	2,1	119	425411	425395	425545	425446	425410	425525	425535			X		
100	100,2	119	2,1	119	425489	425504	425652	425488								X
100	109,9	130	2,1	130	425630		425589								X	X
114,3	109,3	130	2,1	130	425638		425653	425733	425729	425528				X		
127	120,2	144,5	2,1	144,5	425639		425654							X		
125	125,2	155	2,1	155	425636											X
139,7	135,9	155	2,1	155	425735			425734	425736					X		
152,4	147,2	167	2,1	167	425640		425655							X		X
150	150,2	183	2,1	183	425637			425490								X
150	163,3	182,7	2,1	182,7	425631		425590		425713						X	
168,3	163,3	183	2,1	183	425399				425726	425526				X		X
203,2	198,2	217,5	2,1	217,5	425641		425656							X		
200	200,2	233,5	2,1	233,5	425627				425720		425688					X
200	214,1	233,5	2,1	233,5	425632		425591							X	X	X
219,1	214,1	233,5	2,1	233,5				425732	425427	425658	425492			X	X	X
254	250,2	268	2,1	268	425642		425657							X		
250	266,5	287,5	2,1	287,5	425633		425629								X	
304,8	300	319	2,1	319		425678								X		
300	316,1	338,3	2,1	338,3	425634		425592								X	
		25,4	2	25,4	425614		425550			425473			X	X	X	X
		34	2,1	34	425562		425560							X	X	X
		50,5	2,1	50,5	425563		425561			425547				X	X	X
		77,5	2,1	77,5	425565									X	X	X
		91	2,1	91	425566									X	X	X

## DIN 11851



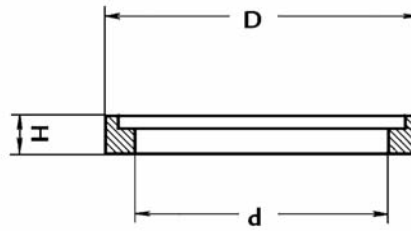
ORDERING CODES DIN 11851								
ITEM NUMBERS								
DN	d BORE	D	H	UNION NUT DIA.	EPDM/301	FPM/305	PTFE/598	NBR/300
10	12	20	4,5	38	425002	425067		425013
15	18	26	4,5	44	425059	425066		425004
20	23	33	4,5	54	425063	425065	425071	
25	30	40	5	63	425042	425048	425031	425033
32	36	46	5	70	425060			
40	42	52	5	78	425041	425047	425064	425034
50	54	64	5	92	425044	425045	425030	425035
65	71	81	5	112	425040	425046		425036
80	85	95	5	127	425039	425049	425073	425037
100	104	114	6	148	425043	425050	425074	425038
125	130	142	7	178	425061			425029
150	155	167	7	210	425062	425072		

## DS



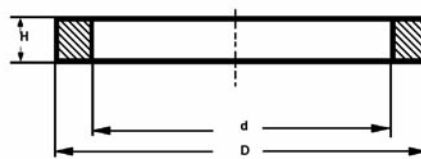
ORDERING CODES DS									
ITEM NUMBERS									
DN	d BORE	D	H	UNION NUT DIA.	EPDM/400	VMQ/600	FPM/300	NBR/001	PTFE/598
25	25	31,8	4,5	57	425203		425218	425210	425228
38	38	46,8	4,5	71	425204	425230	425219	425211	425226
51	51	58,7	4,5	86	425205	425231	425220	425212	425217
63,5	63,5	74,2	4,5	103	425206		425221	425213	425227
76,1	76,1	87,6	4,5	115	425207	425232	425222	425214	425216
101,6	101,6	112,1	4,5	147	425223		425225	425224	425229

## ISO 2853

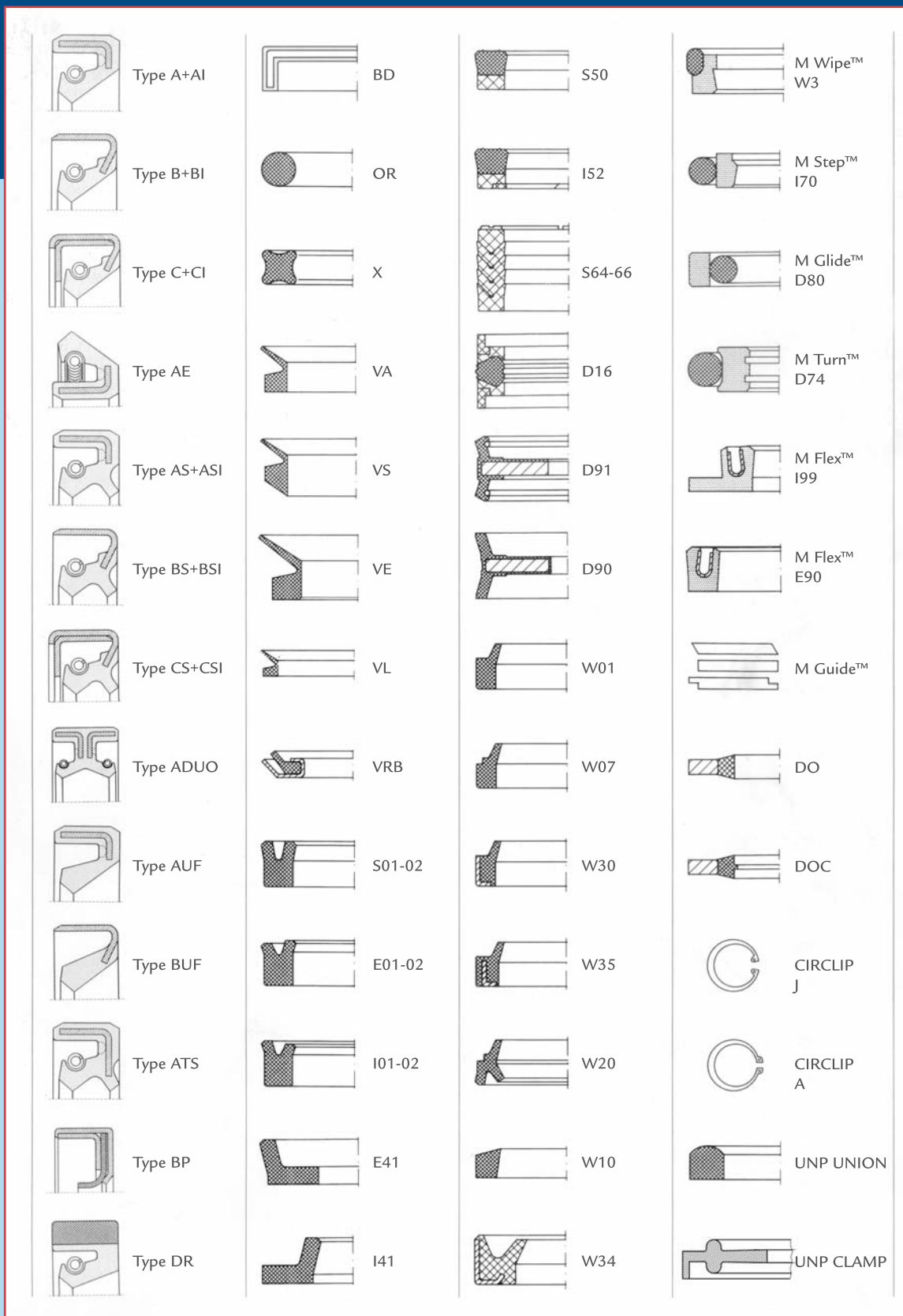


ORDERING CODES ISO 2853							
ITEM NUMBERS							
DN	d BORE	D	H	UNION NUT DIA.	EPDM/400	FPM	NBR/001
25	23,6	32,5	6	48	425508	425412	425500
38	36,6	46	6	64	425509	425413	425501
51	49,6	59,5	6	77	425510	425414	425502
63,5	61,3	73,2	6	91	425511	425415	425503
76,1	73,9	86,5	6	106	425512	425416	425505
101,6	98,6	112,5	6	135	425513	425417	425507

## SMS 1149



ORDERING CODES SMS 1149								
ITEM NUMBERS								
DN	d BORE	D	H	UNION NUT DIA.	EPDM/400	FPM/300	NBR/001	PTFE/598
25	25	32	5,5	51	425310	425327	425300	425316
32	32	40	5,5		425307		425301	425317
38	38	48	5,5	74	425311	425328	425302	425318
51	51	61	5,5	84	425312	425323	425303	425319
63,5	63,5	73,5	5,5	100	425313	425324	425304	425329
76	76	86	5,5	114	425314	425325	425305	425330
101,6	101,6	113,5	5,5	154	425315	425326	425306	



005035.VER9

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