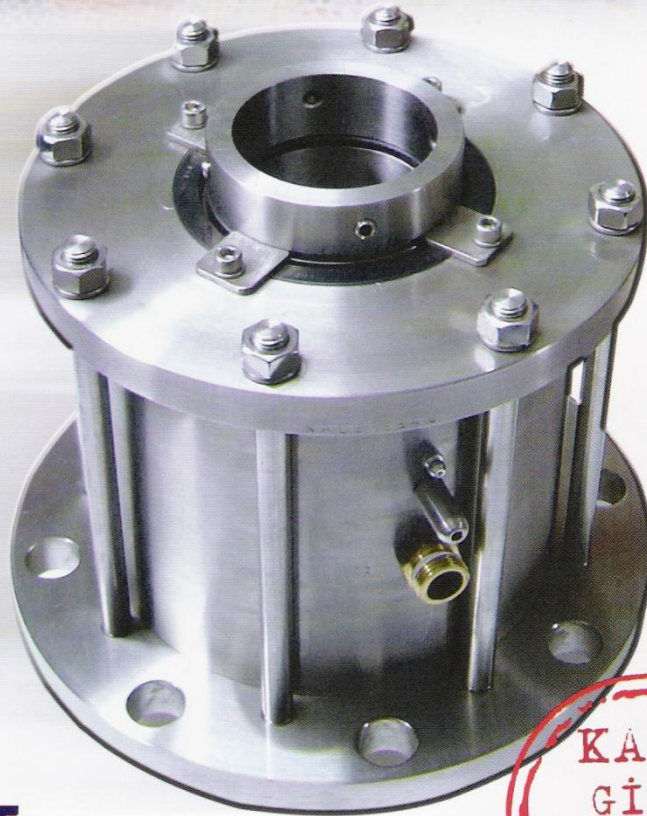






KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ. Olarak

Sızdırmazlık konusunun, işletmeler için büyük önem taşıdığının bilincindeyiz.

Bu nedenle geçmişte yüksek maliyetlerle yurt dışından temin edilen ürünleri, kendi bünyemizde imal ederek KALE SEAL markası ile işletmelerin hizmetine sunmaktayız.

Amacımız; Uzman deneyimli kadromuz ile işletmelerde ve ekipmanlarda yaşanan sızdırmazlık sorunlarını hızlı bir şekilde çözmek, akabinde uzun ömürlü ve kaliteli ürünleri işletmelerin hizmetine sunmaktır. Bu amaç doğrultusunda hedefimiz gelişen ve ilerleyen teknolojiyi takip etmek, ar-ge çalışmaları ile ürünlerimizi geliştirmektir.

KALE SEAL sızdırmazlık ile ilgili bakım maliyetlerinizi gözle görülür şekilde azaltır.

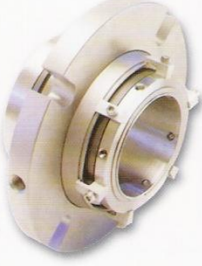
KALE SEAL kaliteli ve ekonomik salmastra üretir.

M. Uğur ERGÜR
Genel Müdür





KARTUŞ SİSTEM
SALMASTRALAR
KTX - D



KARTUŞ SİSTEM
SALMASTRALAR
KTX



REAKTÖR , MİKSER KARIŞTIRICI
SALMASTRALARI

KRS - L



KS 21



KS 22



ÖZEL ÖLÇÜ VE DİZAYN MEKANİK SALMASTRALAR

KS 23



KS 24



KS 59



KS 20



KS 75

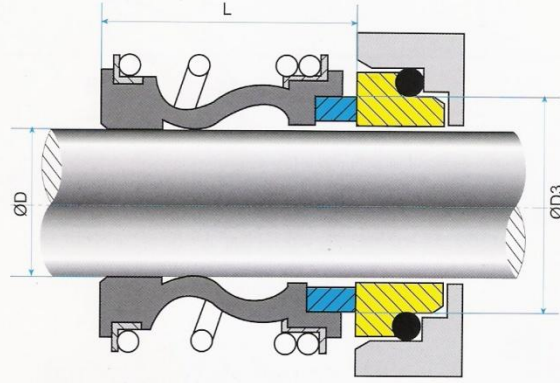


KS 25





4 KS 10



KS10

Tekli kullanım

Balanssız

Dönme yönüne bağımsız

Kauçuk körüklü

Single seal

Unbalanced

Independent of direction of rotation

Elastomer bellows

İşletme sınırları / operating limits

D = 10...100mm 0,4"...4"

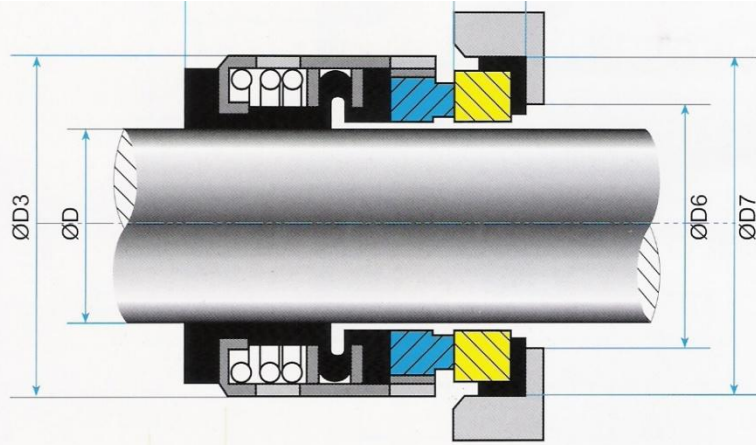
p1 = 12 bar

t = -20...120°C -4...250°F

Vg = 10 m/s

33 ft/s

DÖNER ELEMAN				K4 SABİT ELEMAN				K6 SABİT ELEMAN				K9 SABİT ELEMAN				K50 SABİT ELEMAN			
D	D3	L		D2	D3	L1	L2	D6	D7	L3	L4	L7	L8	L9	d8	D4	D5	L5	
Ø 10	15,7	14,5		15,5	19,2	7,5	6,6	17,0	21,0	6,6	7,5	8,5	17,5	10,0	3,0	11,0	24,60	9,0	
Ø 12	17,7	15,0		17,5	21,6	6,5	5,6	19,0	23,0	6,6	7,5	8,5	17,5	10,0	3,0	13,5	27,80	9,0	
Ø 14	19,7	17,0		20,5	24,6	6,5	5,6	21,0	25,0	6,6	7,5	8,5	17,5	10,0	3,0	17,0	30,95	10,5	
Ø 15	20,8	17,0		20,5	24,6	7,5	6,6	23,0	27,0	6,6	7,5	8,5	17,5	10,0	3,0	17,0	30,95	10,5	
Ø 16	21,0	17,0		22,0	28,0	8,5	7,5	23,0	27,0	6,6	7,5	8,5	17,5	10,0	3,0	17,0	30,95	10,5	
Ø 18	23,7	19,5		24,0	30,0	9,0	8,0	27,0	33,0	7,5	8,5	9,0	19,5	11,5	3,0	20,0	34,15	10,5	
Ø 19	26,7	21,5		29,5	35,0	8,5	7,5	29,0	35,0	7,5	8,5	9,0	19,5	11,5	3,0	20,0	34,15	10,5	
Ø 20	26,7	21,5		29,5	35,0	8,5	7,5	29,0	35,0	7,5	8,5	9,0	19,5	11,5	3,0	21,5	37,50	10,5	
Ø 22	27,7	21,5		29,5	35,0	8,5	7,5	31,0	37,0	7,5	8,5	9,0	19,5	11,5	3,0	23,0	37,30	10,5	
Ø 24	31,2	22,5		32,0	38,0	8,5	7,5	33,0	39,0	7,5	8,5	9,0	19,5	11,5	3,0	26,5	40,50	10,5	
Ø 25	31,2	23,0		32,0	38,0	8,5	7,5	34,0	40,0	7,5	8,5	9,0	19,5	11,5	3,0	26,5	40,50	10,5	
Ø 28	35,0	26,5		36,0	42,0	10,0	9,0	37,0	43,0	7,5	8,5	9,0	19,5	11,5	3,0	29,5	47,65	12,0	
Ø 30	37,0	26,5		39,2	45,0	11,5	10,5	39,0	45,0	7,5	8,5	9,0	19,5	11,5	3,0	32,5	50,80	12,0	
Ø 32	40,2	27,5		42,2	48,0	11,5	10,5	42,0	48,0	7,5	8,5	9,0	19,5	11,5	3,0	32,5	50,80	12,0	
Ø 33	40,2	27,5		44,2	50,0	12,0	11,0	42,0	48,0	7,5	8,5	9,0	19,5	11,5	3,0	36,5	54,00	12,0	
Ø 35	43,2	28,5		46,2	52,0	12,0	11,0	44,0	50,0	7,5	8,5	9,0	19,5	11,5	3,0	36,5	54,00	12,0	
Ø 38	46,2	30,0		49,2	55,0	11,3	10,3	49,0	56,0	9,0	10,0	9,0	22,0	14,0	4,0	39,5	57,15	12,0	
Ø 40	48,8	30,0		52,2	58,0	11,8	10,8	51,0	58,0	9,0	10,0	9,0	22,0	14,0	4,0	42,0	60,35	12,0	
Ø 42	51,8	30,0		53,3	62,0	13,2	12,0	54,0	61,0	9,0	10,0	9,0	22,0	14,0	4,0	46,0	63,50	12,0	
Ø 43	51,8	30,0		53,3	62,0	13,2	12,0	54,0	61,0	9,0	10,0	9,0	22,0	14,0	4,0	46,0	63,50	12,0	
Ø 45	53,8	30,0		55,3	64,0	12,8	11,6	56,0	63,0	9,0	10,0	9,0	22,0	14,0	4,0	46,0	63,50	12,0	
Ø 48	56,8	30,5		59,7	68,4	12,8	11,6	59,0	66,0	9,0	10,0	9,0	22,0	14,0	4,0	49,0	66,70	12,0	
Ø 50	58,8	30,5		60,8	69,3	12,8	11,6	62,0	70,0	9,5	10,5	9,0	23,0	15,0	4,0	52,0	69,85	13,5	
Ø 53	62,2	33,0		63,8	72,3	13,5	12,3	65,0	73,0	11,0	12,0	9,0	23,0	15,0	4,0	55,5	73,05	13,5	
Ø 55	64,2	35,0		66,5	75,4	14,5	13,3	67,0	75,0	11,0	12,0	9,0	23,0	15,0	4,0	58,5	76,20	13,5	
Ø 58	67,2	37,0		69,5	78,4	14,5	13,3	70,0	78,0	11,0	12,0	9,0	23,0	15,0	4,0	61,5	79,40	13,5	
Ø 60	70,0	38,0		71,5	80,4	14,5	13,3	72,0	80,0	11,0	12,0	9,0	23,0	15,0	4,0	61,5	79,40	13,5	
Ø 65	75,0	40,0		76,5	85,4	14,9	13,7	77,0	85,0	11,0	12,0	9,0	23,0	15,0	4,0	68,0	92,10	16,0	
Ø 68	78,0	40,0		82,7	91,5	14,9	13,7	81,0	90,0	11,3	12,5	9,0	26,0	18,0	4,0	71,0	95,25	16,0	
Ø 70	80,0	40,0		83,0	92,0	14,2	13,0	83,0	92,0	11,3	12,5	9,0	26,0	18,0	4,0	71,0	95,25	16,0	
Ø 75	85,5	40,0		90,2	99,0	15,2	14,0	88,0	97,0	11,3	12,5	9,0	26,0	18,0	4,0	75,5	101,60	16,0	
Ø 80	90,5	40,0		95,2	104,0	16,2	15,0	95,0	105,0	12,0	13,0	9,0	26,2	18,2	4,0	84,0	114,30	20,0	
Ø 85	96,0	41,0		100,2	109,0	16,0	14,8	100,0	110,0	14,0	15,0	9,0	26,2	18,2	4,0	87,0	117,50	20,0	
Ø 90	102,0	45,0		105,2	114,0	16,0	14,8	105,0	115,0	14,0	15,0	9,0	26,2	18,2	4,0	93,5	123,85	20,0	
Ø 95	107,0	46,0		111,6	120,3	17,0	15,8	110,0	120,0	14,0	15,0	9,0	25,2	17,2	4,0	96,5	127,00	20,0	
Ø 100	112,0	47,0		114,5	123,3	17,0	15,8	115,0	125,0	14,0	15,0	9,0	25,2	17,2	4,0	103,0	133,35	20,0	



D	D3	L	L1	D6	D7
Ø 12	22,00	23,9	6,6	19	23
Ø 14	24,10	26,4	6,6	21	25
Ø 16	26,20	26,4	6,6	23	27
Ø 18	32,20	27,5	6,6	27	33
Ø 20	33,90	27,5	7,5	29	35
Ø 22	36,10	27,5	7,5	31	37
Ø 24	38,10	30,0	7,5	33	39
Ø 25	38,80	30,0	7,5	34	40
Ø 28	42,10	32,5	7,5	37	43
Ø 30	44,20	32,5	7,5	39	45
Ø 32	45,80	32,5	7,5	42	48
Ø 33	46,90	32,5	7,5	42	48
Ø 35	48,86	32,5	7,5	44	50
Ø 38	54,20	34,0	9,0	49	56
Ø 40	56,10	34,0	9,0	51	58
Ø 43	58,80	34,0	9,0	54	61
Ø 45	60,90	34,0	9,0	56	63
Ø 48	64,10	30,0	9,0	59	66
Ø 50	66,20	34,5	9,5	62	70
Ø 53	69,10	34,5	11,0	65	73
Ø 55	71,10	34,5	11,0	67	75
Ø 58	78,20	39,5	11,0	70	78
Ø 60	79,90	39,5	11,0	72	80
Ø 63	82,80	39,5	11,0	75	83
Ø 65	85,10	39,5	11,3	77	85
Ø 70	90,00	47,5	11,3	83	92
Ø 75	97,00	47,5	11,3	88	97
Ø 80	104,00	45,0	12,0	95	105
Ø 85	108,00	45,0	14,0	100	110
Ø 90	114,00	50,0	14,0	105	115
Ø 95	118,00	50,0	14,0	110	120
Ø 100	124,00	50,0	14,0	115	125

KS 20

Tekli kullanım
balanssız
dönme yönüne bağımsız
kauçuk körüklü

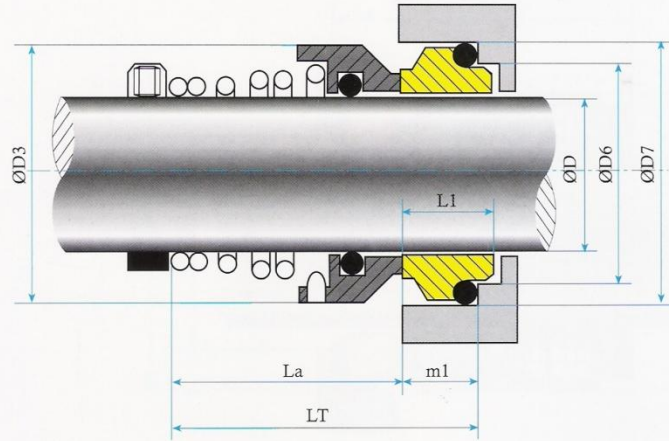
single seal
unbalanced
independent of
direction of rotation
elastomer bellows

İşletme sınırları / operating limits
D = 12...100mm 0,47"...4"
p1 = 40 bar 580 PSI
t1 = -40...205°C -40...400°F
Vg = 13 m/s



6 KS 30

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



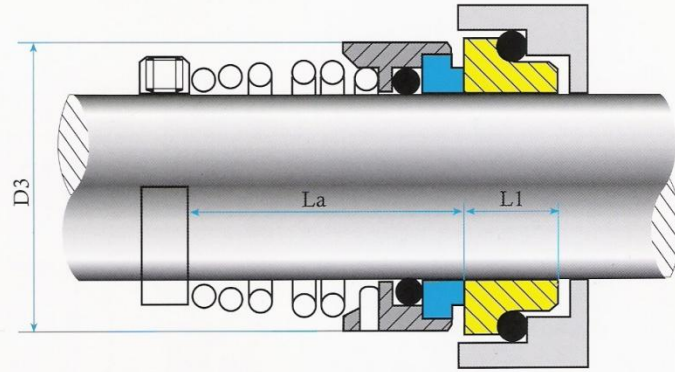
KS 30

Tekli kullanım
Balanssız
Dönme yönüne bağımlı
Konik yaylı

Single seal
Unbalanced
Dependent on
direction of rotation
conical spring

İşletme sınırları operating limits
D = 16...80mm 0,63"....3,125"
p1 = 10 bar 145 PSI
t = -20...180°C -4...355°F
Vg = 20 m/s... 66ft/s

D	D3	D6	D7	LT	L1	La	m1
Ø 16	25,8	22,0	28,0	26,5	11,5	17,5	9,0
Ø 18	28,8	24,0	30,0	28,5	12,5	18,5	10,0
Ø 20	30,8	29,5	35,0	29,5	12,5	20,0	9,5
Ø 22	32,8	29,5	35,0	31,0	12,5	21,5	9,5
Ø 24	34,8	32,0	38,0	32,5	12,5	23,0	9,5
Ø 25	35,8	32,0	38,0	34,0	12,5	24,5	9,5
Ø 26	36,8	34,0	40,0	34,5	13,0	24,5	10,0
Ø 28	39,8	36,0	42,0	35,5	14,0	24,5	11,0
Ø 30	42,8	39,2	45,0	35,5	14,0	24,5	11,0
Ø 32	45,8	42,2	48,0	39,0	14,0	28,0	11,0
Ø 35	48,8	46,2	52,0	39,5	14,5	28,0	11,5
Ø 38	52,8	49,2	55,0	42,5	14,5	31,0	11,5
Ø 40	55,8	52,2	58,0	45,5	14,5	34,0	11,5
Ø 42	58,8	53,3	62,0	49,3	17,0	35,0	14,3
Ø 45	60,8	55,3	64,0	50,8	17,0	36,5	14,3
Ø 48	63,8	59,7	68,4	56,3	17,0	42,0	14,3
Ø 50	65,8	60,8	69,3	57,3	17,0	43,0	14,3
Ø 55	70,8	66,5	75,4	62,3	18,0	47,0	15,3
Ø 58	75,8	69,5	78,4	65,3	18,0	50,0	15,3
Ø 60	77,8	71,5	80,4	66,3	18,0	51,0	15,3
Ø 65	83,8	76,5	85,4	67,3	18,0	52,0	15,3
Ø 68	87,8	82,7	91,5	69,0	19,0	53,0	16,0
Ø 70	89,8	83,0	92,0	69,3	18,0	54,0	15,3
Ø 75	97,8	90,2	99,0	70,3	18,0	55,0	15,3
Ø 80	99,8	95,2	104,0	74,3	19,0	58,0	16,3



D	D3	D6	D7	LT	L1	La
Ø 16	26	22,0	28,0	26,5	9,5	19,5
Ø 18	31	24,0	30,0	28,5	10,5	20,5
Ø 20	34	29,5	35,0	29,5	10,0	22,0
Ø 22	36	29,5	35,0	31,0	10,0	23,5
Ø 24	38	32,0	38,0	32,5	10,0	25,0
Ø 25	39	32,0	38,0	34,0	10,0	26,5
Ø 26	40	34,0	40,0	34,5	10,5	26,5
Ø 28	42	36,0	42,0	35,5	11,5	26,5
Ø 30	44	39,2	45,0	35,5	13,0	25,0
Ø 32	46	42,2	48,0	39,0	13,0	28,5
Ø 33	47	42,2	48,0	39,0	13,0	28,5
Ø 35	49	46,2	52,0	39,5	13,5	28,5
Ø 38	54	49,2	55,0	42,5	13,0	32,2
Ø 40	56	52,2	58,0	45,5	13,5	34,7
Ø 42	58	53,3	62,0	49,3	14,5	37,3
Ø 43	59	53,3	62,0	49,3	14,5	37,3
Ø 45	61	55,3	64,0	50,8	14,5	39,2
Ø 48	64	59,7	68,4	56,3	14,5	44,7
Ø 50	66	60,8	69,3	57,3	14,5	45,7
Ø 53	69	66,5	75,4	62,3	16,0	49,0
Ø 55	71	66,5	75,4	62,3	16,0	49,0
Ø 58	78	69,5	78,4	65,3	16,0	52,0
Ø 60	79	71,5	80,4	66,3	16,0	53,0
Ø 63	83	76,5	85,4	67,3	16,0	54,3
Ø 65	85	76,5	85,4	67,3	16,0	54,3
Ø 68	88	82,7	91,5	69,0	16,0	55,3
Ø 70	90	83,0	92,0	69,3	16,0	56,3
Ø 75	98	90,2	99,0	70,3	17,0	56,3
Ø 80	103	95,2	104,0	74,3	17,5	59,3

KS 35

Tekli kullanım
Balanssız
Dönme yönüne bağımlı
Konik yaylı

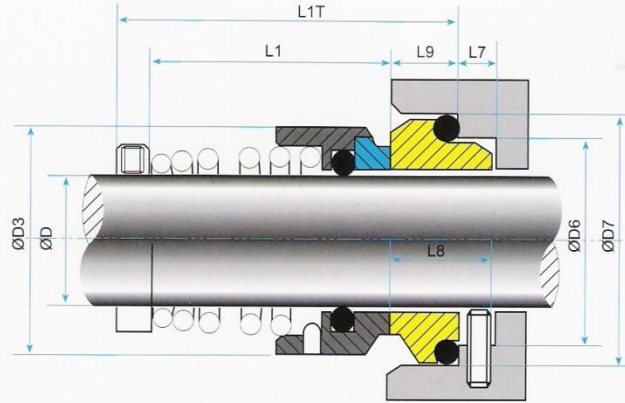
Single seal
Unbalanced
Dependent on
direction of rotation
conical spring

İşletme sınırları
operating limits
D = 16...80mm 0,63"....3,125"
p1= 10 bar 145 PSI
t = -20...180°C -4...355°F
Vg = 20 m/s... 66ft/s



8 KS 30N-35N

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



KS30 N

D	D3	L1
Ø 20	31	22.0
Ø 22	33	21.5
Ø 24	35	23.5
Ø 25	36	26.5
Ø 28	40	26.5
Ø 30	43	26.5
Ø 32	46	28.5
Ø 33	47	28.5
Ø 35	49	28.5
Ø 38	53	33.5
Ø 40	56	36.0
Ø 43	59	38.5
Ø 45	61	39.5
Ø 48	64	46.0
Ø 50	66	45.0
Ø 53	69	47.0
Ø 55	71	49.0
Ø 58	76	55.0
Ø 60	78	55.0
Ø 63	83	55.0
Ø 65	84	55.0
Ø 68	88	55.0
Ø 70	90	57.0
Ø 75	98	62.0
Ø 80	100	61.8

KS35 N

D	D3	D6	D7	L1	L1T	L7	L8	L9
Ø 20	34	29	35	22.0	45.0	9	19.5	11.5
Ø 22	36	31	37	23.5	45.0	9	19.5	11.5
Ø 24	38	33	39	25.0	50.0	9	19.5	11.5
Ø 25	39	34	40	26.5	50.0	9	19.5	11.5
Ø 28	42	37	43	26.5	50.0	9	19.5	11.5
Ø 30	44	39	45	25.0	55.0	9	19.5	11.5
Ø 32	46	42	48	28.5	55.0	9	19.5	11.5
Ø 33	47	42	48	28.5	55.0	9	19.5	11.5
Ø 35	49	44	50	28.5	55.0	9	19.5	11.5
Ø 38	54	49	56	32.2	55.0	9	22.0	14.0
Ø 40	56	51	58	34.7	55.0	9	22.0	14.0
Ø 43	59	54	61	37.3	60.0	9	22.0	14.0
Ø 45	61	56	63	39.2	60.0	9	22.0	14.0
Ø 48	64	59	66	44.7	60.0	9	22.0	14.0
Ø 50	66	62	70	45.7	60.0	9	23.0	15.0
Ø 53	69	65	73	48.0	70.0	9	23.0	15.0
Ø 55	71	67	75	49.0	70.0	9	23.0	15.0
Ø 58	78	70	78	52.0	70.0	9	23.0	15.0
Ø 60	79	72	80	53.0	70.0	9	23.0	15.0
Ø 63	83	75	83	54.3	70.0	9	23.0	15.0
Ø 65	85	77	85	54.3	80.0	9	23.0	15.0
Ø 68	88	81	90	55.3	80.0	9	26.0	18.0
Ø 70	90	83	92	56.3	80.0	9	26.0	18.0
Ø 75	98	88	97	56.3	80.0	9	26.0	18.0
Ø 80	103	95	105	59.3	90.0	9	26.0	18.2

Tekli kullanım
balanssız
dönme yönüne bağımlı
konik yaylı
EN 12756'ya uygun

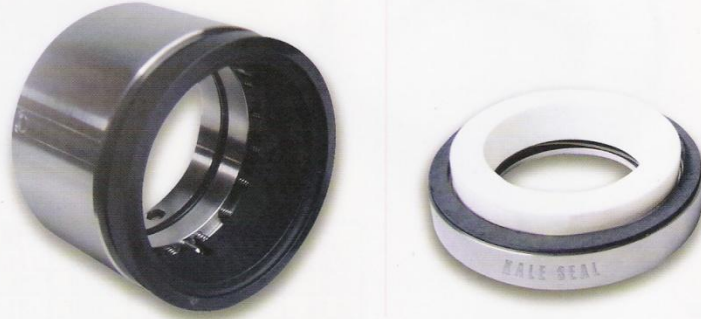
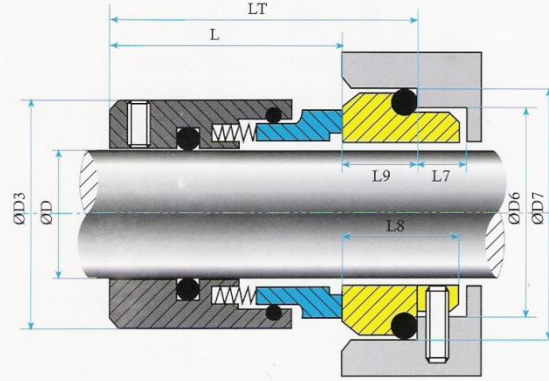
single seal
unbalanced
dependent on direction of
rotation
To EN 12756

İşletme sınırları / operating limits
D = 20...80mm 0,78"...3,125"
p1= 10 bar 145 PSI
T = -80...220°C -112°F...430°F
Vg = 20 m/s... 66ft/s



9 KS 40

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



D	D3	D6	D7	LT	L7	L8	L9
Ø 18	33	27,0	33,0	48,0	9	19,5	11,5
Ø 20	35	29,0	35,0	48,0	9	19,5	11,5
Ø 22	37	31,0	37,0	48,0	9	19,5	11,5
Ø 24	40	33,0	39,0	48,0	9	19,5	11,5
Ø 25	40	34,0	40,0	48,0	9	19,5	11,5
Ø 28	43	37,0	43,0	48,0	9	19,5	11,5
Ø 30	45	39,0	45,0	48,0	9	19,5	11,5
Ø 32	49	42,0	48,0	51,0	9	19,5	11,5
Ø 33	49	42,0	48,0	51,0	9	19,5	11,5
Ø 35	50	44,0	50,0	51,0	9	19,5	11,5
Ø 38	56	49,0	56,0	56,0	9	22,0	14,0
Ø 40	56	51,0	58,0	56,0	9	22,0	14,0
Ø 43	61	54,0	61,0	56,0	9	22,0	14,0
Ø 45	61	56,0	63,0	56,0	9	22,0	14,0
Ø 48	66	59,0	66,0	56,0	9	22,0	14,0
Ø 50	66	62,0	70,0	57,0	9	23,0	15,0
Ø 55	71	67,0	75,0	57,0	9	23,0	15,0
Ø 60	77	72,0	80,0	57,0	9	23,0	15,0
Ø 65	83	77,0	85,0	63,0	9	23,0	15,0
Ø 70	92	83,0	92,0	69,3	9	26,0	18,0
Ø 75	97	88,0	97,0	69,3	9	26,0	18,0
Ø 80	102	95,0	105,0	69,7	9	26,2	18,2
Ø 85	107	100,0	110,0	69,7	9	26,2	18,2
Ø 90	112	105,0	115,0	69,7	9	26,2	18,2
Ø 95	117	110,0	120,0	69,7	9	25,2	17,2
Ø 100	122	115,0	125,0	69,7	9	25,2	17,2

KS 40

Tekli kullanım
Balanssız
Dönme yönüne bağımsız
Çoklu yay sistemi
EN 12756'ya uygun

Single Seal
Unbalanced
Independent of
direction of rotation
Multiple springs
To EN 12756

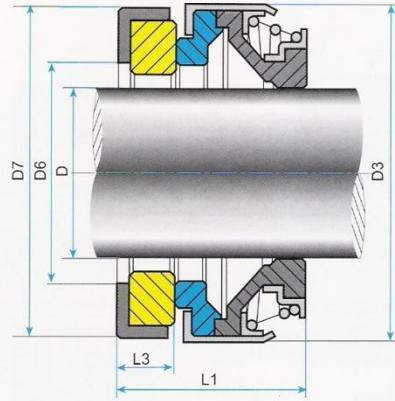
İşletme sınırları / operating limits

D = 18...100mm 0,625"...4"
p1 = 25 bar 360 PSI
t = -80...220°C -112°F..430°F
Vg = 20 m/s 66 ft/s



10 KS 45

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



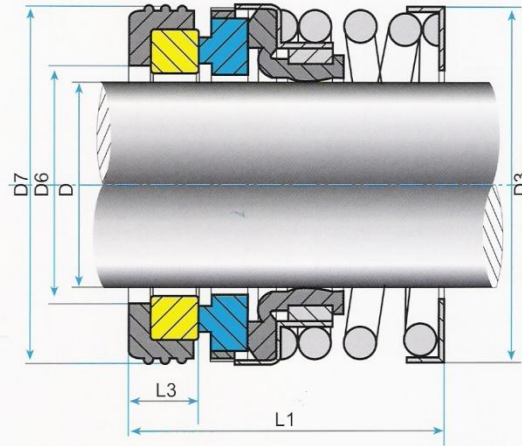
KS 45

Tekli kullanım
balanssız
dönme yönüne bağımsız
kauçuk körüklü

single seal
unbalanced
independent of
direction of rotation
elastomer bellows

İşletme sınırları
operating limits
D = 6...60mm
p₁ = 6 bar
t = -30...200°C
V_g = 10 m/s

D	D3	D6	D7	L1	L3
Ø 6	18,0	8,0	22,0	14,0	4,0
Ø 8	24,0	10,0	22,0	15,0	5,0
Ø 10	24,0	12,0	26,0	21,0	8,0
Ø 11	24,0	13,0	26,0	21,0	8,0
Ø 12	24,0	14,0	26,0	19,5	8,0
Ø 13	24,0	15,0	26,0	21,0	5,5
Ø 13L	24,0	15,0	26,0	21,0	8,0
Ø 14	28,0	16,0	28,5	21,0	8,0
Ø 14L	32,0	16,0	29,5	21,0	8,0
Ø 15	32,0	17,0	29,5	21,0	8,0
Ø 16	32,0	18,0	29,5	21,0	8,0
Ø 16L	39,0	18,0	38,0	21,0	8,0
Ø 17	39,0	19,0	42,0	21,0	8,0
Ø 18	39,0	20,0	42,0	21,0	8,0
Ø 19	39,0	21,0	42,0	21,0	8,0
Ø 20	39,0	22,0	42,0	21,0	8,0
Ø 20L	42,0	24,0	45,0	23,0	8,0
Ø 22	42,0	24,0	45,0	23,0	10,0
Ø 23	47,0	25,0	50,0	23,5	10,0
Ø 24	47,0	26,0	50,0	23,5	10,0
Ø 25	42,0	27,0	50,0	23,5	10,0
Ø 25L	47,0	27,0	50,0	23,5	10,0
Ø 26	47,0	29,0	50,0	23,5	10,0
Ø 27	47,0	30,0	50,0	23,5	10,0
Ø 28	54,0	31,0	57,0	25,0	10,0
Ø 30	54,0	33,0	57,0	25,0	10,0
Ø 32	54,0	35,0	57,0	25,0	10,0
Ø 35	60,0	38,0	63,0	26,0	10,0
Ø 38	65,0	41,0	68,0	30,0	12,0
Ø 40	65,0	43,0	68,0	30,0	12,0
Ø 45	70,0	48,0	73,0	32,0	12,0
Ø 50	85,0	52,0	88,0	38,0	15,0
Ø 55	85,0	58,0	88,0	38,0	15,0
Ø 60	105,0	63,0	110,0	45,0	15,0



KS50A
D= 3/8"...2"

KS50A	D	D3	D6	D7	L1	L3
3/8"	9,525	23,5	14,3	22,225	28,6	6,4
1/2"	12,700	26,0	17,5	24,400	28,6	6,4
5/8"	15,875	30,0	20,6	31,750	32,5	8,7
3/4"	19,050	32,0	23,8	34,925	32,5	8,7
7/8"	22,225	37,5	27,0	38,100	34,1	8,7
1"	25,400	44,0	30,2	41,275	36,5	9,5
1 1/8"	28,575	48,0	33,3	44,450	38,1	9,5
1 1/4"	31,750	50,0	36,5	47,625	38,1	9,5
1 3/8"	34,925	54,5	39,7	50,800	39,7	9,5
1 1/2"	38,100	58,5	42,9	53,975	39,7	9,5
1 5/8"	41,275	64,0	46,0	60,325	47,6	11,1
1 3/4"	44,450	67,0	49,2	63,500	47,6	11,1
1 7/8"	47,625	71,0	52,4	66,675	50,8	11,1
2"	50,800	73,5	55,6	69,850	50,8	11,1

KS 50

Tekli kullanım
Balanssız
Dönme yönüne bağımsız
Kauçuk körüklü
Silindirik yaylı

Single seal
Unbalanced
Independent of
direction of rotation
elastomer bellows
cylindric spring

İşletme sınırları / operating limits

D = 10...55mm

p1= 10 bar

t = -30...200°C

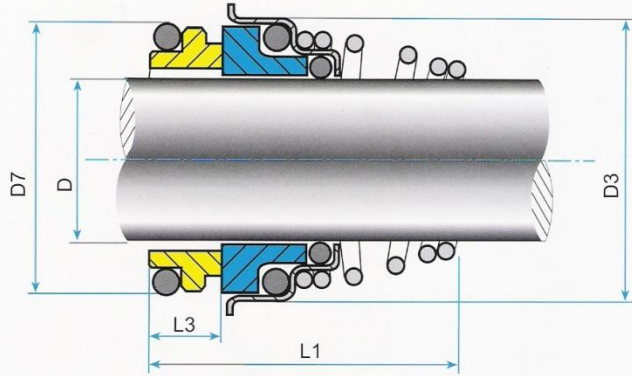
Vg = 12 m/s...

D	D3	D6	D7	L1	L3
Ø 10	23,5	16,0	24,0	23,0	7,0
Ø 11	23,5	16,0	24,0	23,0	7,0
Ø 12	26,0	17,0	26,0	24,0	7,0
Ø 14	28,0	21,0	28,0	25,0	7,0
Ø 15	28,0	21,0	28,0	25,0	7,0
Ø 16	30,0	22,0	32,0	25,0	10,0
Ø 18	32,5	25,0	35,0	26,0	10,0
Ø 19	32,5	25,0	35,0	26,0	10,0
Ø 20	35,5	27,0	38,0	28,0	10,0
Ø 22	37,5	29,0	40,0	28,0	10,0
Ø 25	42,0	32,0	44,0	29,0	10,0
Ø 28	45,5	34,0	46,0	30,0	10,0
Ø 30	48,0	38,0	50,0	31,0	10,0
Ø 32	50,0	40,0	54,0	33,0	10,0
Ø 35	54,5	44,0	58,0	35,0	10,0
Ø 38	58,5	46,0	60,0	37,0	10,0
Ø 40	62,0	48,0	64,0	38,0	10,0
Ø 45	66,0	52,0	66,0	40,0	10,0
Ø 50	72,5	58,0	72,0	42,0	10,0
Ø 55	75,5	60,0	78,0	44,0	12,0



12 KS 55

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KS 55

Tekli kullanım
balanssız
dönme yönüne bağımsız
kauçuk körüklü

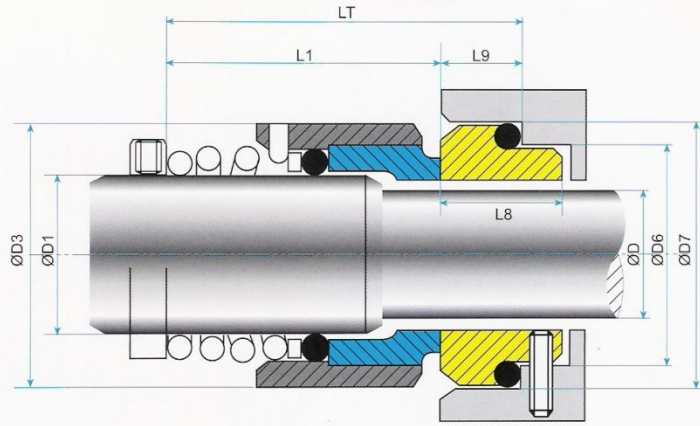
single seal
unbalanced
independent of
direction of rotation
elastomer bellows

İşletme sınırları
operating limits
D = 10...40mm
p1= 6 bar
t = -30...200°C
Vg = 10 m/s

D	D3	D7	L1	L3
Ø 10	20	18,1	20,5	5,5
Ø 11	22	20,6	23,5	5,5
Ø 12	22	20,6	23,5	5,5
Ø 13	25	23,1	28,0	6,0
Ø 14	25	23,1	28,0	6,0
Ø 15	29	26,9	30,0	7,0
Ø 16	29	26,9	30,0	7,0
Ø 17	29	26,9	30,0	7,0
Ø 18	33	30,9	32,0	8,0
Ø 19	33	30,9	33,0	8,0
Ø 20	33	30,9	33,0	8,0
Ø 21	38	35,4	33,0	8,0
Ø 22	38	35,4	33,0	8,0
Ø 23	38	35,4	35,0	8,0
Ø 24	38	35,4	35,0	8,0
Ø 25	40	38,2	35,5	8,5
Ø 28	46	43,3	39,0	9,0
Ø 29	46	43,3	39,0	9,0
Ø 30	46	43,3	39,0	9,0
Ø 32	46	43,3	39,0	9,0
Ø 33	48	53,5	50,5	11,5
Ø 35	50	53,5	50,5	11,5
Ø 38	58	60,5	50,5	11,5
Ø 40	58	60,5	50,5	11,5



13 KS 65 N



KS 65 N

D	D1	D3	D6	D7	L1	LT	L8	L9
Ø 18	22	36	27,0	33,0	32,5	44,0	19,5	11,5
Ø 20	24	38	29,0	35,0	32,5	44,0	19,5	11,5
Ø 22	26	40	31,0	37,0	32,5	44,0	19,5	11,5
Ø 24	28	42	33,0	39,0	32,5	44,0	19,5	11,5
Ø 25	30	44	34,0	40,0	33,5	45,0	19,5	11,5
Ø 28	33	47	37,0	43,0	35,5	47,0	19,5	11,5
Ø 30	35	49	39,0	45,0	35,5	47,0	19,5	11,5
Ø 32	38	54	42,0	48,0	39,5	51,0	19,5	11,5
Ø 33	38	54	42,0	48,0	39,5	51,0	19,5	11,5
Ø 35	40	56	44,0	50,0	43,5	55,0	19,5	11,5
Ø 38	43	59	49,0	56,0	46,0	60,0	22,0	14,0
Ø 40	45	61	51,0	58,0	48,0	62,0	22,0	14,0
Ø 43	48	64	54,0	61,0	51,0	65,0	22,0	14,0
Ø 45	50	66	56,0	63,0	55,0	69,0	22,0	14,0
Ø 48	53	69	59,0	66,0	55,0	69,0	22,0	14,0
Ø 50	55	71	62,0	70,0	58,0	73,0	23,0	15,0
Ø 53	58	78	65,0	73,0	60,0	75,0	23,0	15,0
Ø 55	60	79	67,0	75,0	60,0	75,0	23,0	15,0
Ø 58	63	83	70,0	78,0	60,0	75,0	23,0	15,0
Ø 60	65	85	72,0	80,0	60,0	75,0	23,0	15,0
Ø 63	68	88	75,0	83,0	60,0	75,0	23,0	15,0
Ø 65	70	90	77,0	85,0	61,0	76,0	23,0	15,0
Ø 70	75	98	83,0	92,0	63,0	81,0	26,0	18,0
Ø 75	80	103	88,0	97,0	68,0	86,0	26,0	18,0
Ø 80	85	109	95,0	105,0	68,0	86,0	26,2	18,2

Tekli kullanım
Balanslı
Dönme yönüne bağımlı
Konik yaylı
EN 12756'ya uygun

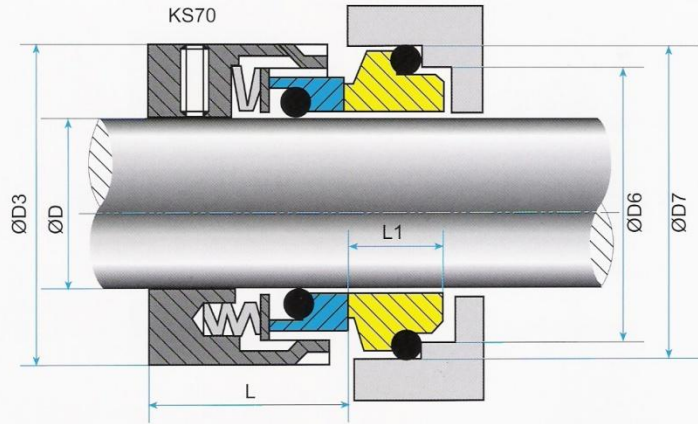
Single seal
Balanced
Dependent on
direction of rotation
Conical spring
To EN 12756

İşletme sınırları / operating limits
D = 18...80mm 0,625"...3,125"
p1= 25(40) bar 360(580) PSI
t = -80...220°C -112°F..430°F
Vg = 15 m/s 50 ft/s



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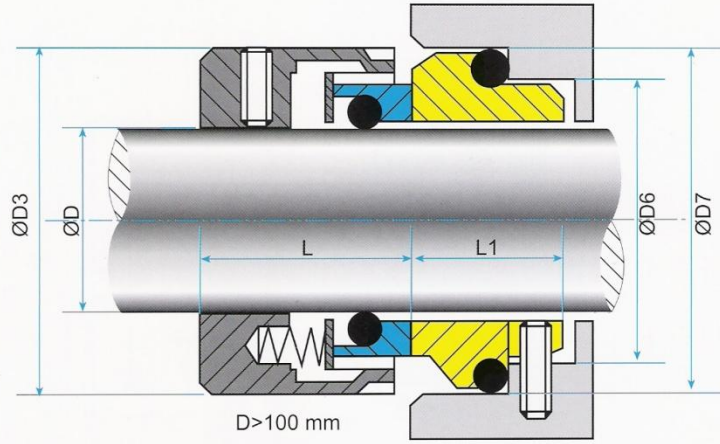
KS 70

Tekli kullanım
balanssız
dönme yönüne bağımsız
Çoklu yay sistemi veya süper sinüs yay

single seal
unbalanced
independent of
direction of rotation
multiple springs or super sinus spring

İşletme sınırları / operating limits
D = 20...100mm 0,78"...4"
p1= 16(25 bar) 230(360)PSI
T = -80...220°C -112...430°F
Vg = 20 m/s... 66ft/s

D	D3	L	L1	D6	D7
Ø 20	34.8	26,0	12,5	29.5	35.0
Ø 22	36.8	26,0	12,5	29.5	35.0
Ø 24	38.8	28,5	12,5	32.0	38.0
Ø 25	39.8	28,5	12,5	32.0	38.0
Ø 28	42.8	31,0	12,5	34.0	40.0
Ø 30	44.8	31,0	13,0	39.2	45.0
Ø 32	46.8	31,0	14,0	42.2	48.0
Ø 33	47.8	31,0	14,0	44.2	50.0
Ø 35	49.8	31,0	14,5	46.2	52.0
Ø 38	54.8	31,0	14,5	49.2	55.0
Ø 40	56.8	31,0	14,5	52.2	58.0
Ø 43	59.8	31,0	17,0	53.3	62.0
Ø 45	61.8	31,0	17,0	55.3	64.0
Ø 48	64.8	31,0	17,0	59.7	68.4
Ø 50	66.8	32,5	17,0	60.8	69.3
Ø 53	69.8	32,5	17,0	63.8	72.3
Ø 55	71.8	32,5	18,0	66.5	75.4
Ø 58	78.8	37,5	18,0	69.3	78.4
Ø 60	80.8	37,5	18,0	71.5	80.4
Ø 63	83.8	37,5	18,0	74.5	83.4
Ø 65	85.8	37,5	18,0	76.5	85.4
Ø 68	88.8	37,5	19,0	82.7	91.5
Ø 70	90.8	42,0	18,0	83.0	92.0
Ø 75	98.8	42,0	18,0	90.2	99.0
Ø 80	103.8	41,8	19,0	95.2	104.0
Ø 85	108.8	41,8	19,0	100.2	109.0
Ø 90	113.8	46,8	19,0	105.5	114.0
Ø 95	118.8	47,8	20,0	111.6	120.3
Ø 100	123.8	47,8	20,0	114.5	123.3



D	D3	L	L1	D6	D7
Ø 105	139	67	30	122,2	134,3
Ø 110	144	67	30	128,2	140,3
Ø 115	149	67	30	136,2	148,3
Ø 120	154	67	30	138,2	150,3
Ø 125	159	67	30	142,2	154,3
Ø 130	164	67	30	146,2	158,3
Ø 135	169	67	30	152,2	164,3
Ø 140	174	67	30	156,2	168,3
Ø 145	179	67	30	161,2	173,3
Ø 150	184	69	32	168,2	180,3
Ø 155	192	80	34	173,2	185,3
Ø 160	194	80	34	178,2	190,3
Ø 165	202	80	34	183,2	195,3
Ø 170	207	80	34	188,2	200,3
Ø 175	212	80	34	193,2	205,3
Ø 180	217	84	38	207,5	219,3
Ø 185	222	84	38	212,5	224,3
Ø 190	227	84	38	217,5	229,3
Ø 195	231	84	38	222,5	234,3
Ø 200	237	84	38	227,5	239,3

KS 70 A

Tekli kullanım
balanssız
dönme yönüne bağımsız
Çoklu yay sistemi

single seal
unbalanced
independent of direction of rotation
Multiple springs

İşletme sınırları / operating limits
D = 20...200mm 0,78"...8"
p1= 16(25 bar) 230(360)PSI
T = -80...220°C -112...430°F
Vg = 20 m/s... 66ft/s



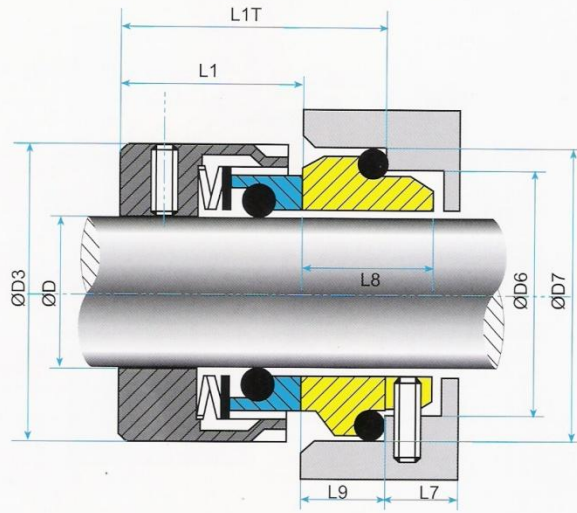
15 KS 70 A

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16 KS 70 N

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



KS 70 N

Tekli kullanım

Balanssız

Dönme yönüne bağımsız

Çoklu yay sistemi veya süper sinüs yay
EN 12756'ya uygun

Single seal

Unbalanced

Independent of

direction of rotation

multiple springs or super sinus spring

To EN 12756

İşletme sınırları / operating limits

D = 20...100mm 0,78"...4"

p1= 16 (25) bar 230(360) PSI

t = -80...220°C -112°F..430°F

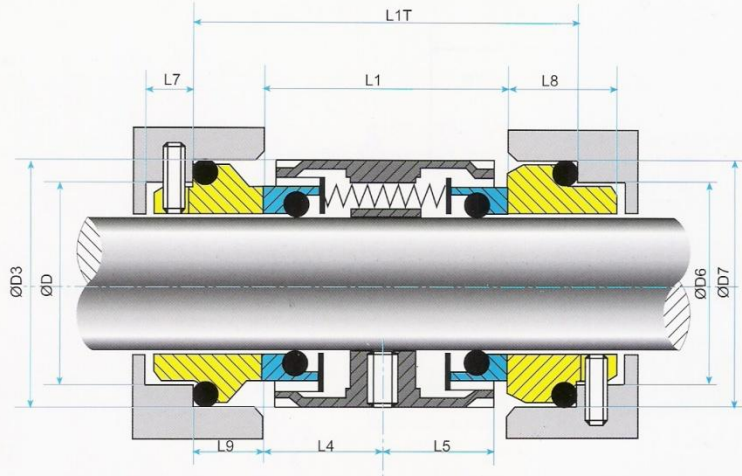
Vg = 20 m/s 66 ft/s

D	D3	D6	D7	L1T	L1	L7	L8	L9
Ø 20	35	29,0	35,0	37,5	26,0	9	19,5	11,5
Ø 22	37	31,0	37,0	37,5	26,0	9	19,5	11,5
Ø 24	39	33,0	39,0	40,0	28,5	9	19,5	11,5
Ø 25	40	34,0	40,0	40,0	28,5	9	19,5	11,5
Ø 28	43	37,0	43,0	42,5	31,0	9	19,5	11,5
Ø 30	45	39,0	45,0	42,5	31,0	9	19,5	11,5
Ø 32	47	42,0	48,0	42,5	31,0	9	19,5	11,5
Ø 33	48	42,0	48,0	42,5	31,0	9	19,5	11,5
Ø 35	50	44,0	50,0	42,5	31,0	9	19,5	11,5
Ø 38	55	49,0	56,0	45,0	31,0	9	22,0	14,0
Ø 40	57	51,0	58,0	45,0	31,0	9	22,0	14,0
Ø 43	60	54,0	61,0	45,0	31,0	9	22,0	14,0
Ø 45	62	56,0	63,0	45,0	31,0	9	22,0	14,0
Ø 48	65	59,0	66,0	45,0	31,0	9	22,0	14,0
Ø 50	67	62,0	70,0	47,5	32,5	9	23,0	15,0
Ø 53	70	65,0	73,0	47,5	32,5	9	23,0	15,0
Ø 55	72	67,0	75,0	47,5	32,5	9	23,0	15,0
Ø 58	79	70,0	78,0	52,5	37,5	9	23,0	15,0
Ø 60	81	72,0	80,0	52,5	37,5	9	23,0	15,0
Ø 63	84	75,0	83,0	52,5	37,5	9	23,0	15,0
Ø 65	86	77,0	85,0	52,5	37,5	9	23,0	15,0
Ø 68	89	81,0	90,0	52,5	37,5	9	26,0	18,0
Ø 70	91	83,0	92,0	60,0	42,0	9	26,0	18,0
Ø 75	99	88,0	97,0	60,0	42,0	9	26,0	18,0
Ø 80	104	95,0	105,0	60,0	41,8	9	26,2	18,2
Ø 85	109	100,0	110,0	60,0	41,8	9	26,2	18,2
Ø 90	114	105,0	115,0	65,0	46,8	9	26,2	18,2
Ø 95	119	110,0	120,0	65,0	47,8	9	25,2	17,2
Ø 100	124	115,0	125,0	65,0	47,8	9	25,2	17,2



17 KS 70 D

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



D	D3	D6	D7	L1T	L1	L4	L5	L7	L8	L9
Ø 18	33	27,0	33,0	61,0	38	19	17	9	19,5	11,5
Ø 20	35	29,0	35,0	61,0	38	19	17	9	19,5	11,5
Ø 22	37	31,0	37,0	61,0	38	19	17	9	19,5	11,5
Ø 24	39	33,0	39,0	61,0	38	19	17	9	19,5	11,5
Ø 25	40	34,0	40,0	61,0	38	19	17	9	19,5	11,5
Ø 28	43	37,0	43,0	62,0	39	19,5	17,5	9	19,5	11,5
Ø 30	45	39,0	45,0	62,0	39	19,5	17,5	9	19,5	11,5
Ø 32	47	42,0	48,0	62,0	39	19,5	17,5	9	19,5	11,5
Ø 33	48	42,0	48,0	62,0	39	19,5	17,5	9	19,5	11,5
Ø 35	50	44,0	50,0	62,0	39	19,5	17,5	9	19,5	11,5
Ø 38	55	49,0	56,0	69,0	41	20,5	18,5	9	22,0	14,0
Ø 40	57	51,0	58,0	70,0	42	21,0	19	9	22,0	14,0
Ø 43	60	54,0	61,0	70,0	42	21,0	19	9	22,0	14,0
Ø 45	62	56,0	63,0	70,0	42	21,0	19	9	22,0	14,0
Ø 48	65	59,0	66,0	70,0	42	21,0	19	9	22,0	14,0
Ø 50	67	62,0	70,0	73,0	43	21,5	19,5	9	23,0	15,0
Ø 53	70	65,0	73,0	73,0	43	21,5	19,5	9	23,0	15,0
Ø 55	72	67,0	75,0	73,0	43	21,5	19,5	9	23,0	15,0
Ø 58	79	70,0	78,0	86,0	56	28,0	23,5	9	23,0	15,0
Ø 60	81	72,0	80,0	86,0	56	28,0	23,5	9	23,0	15,0
Ø 63	84	75,0	83,0	85,0	55	27,5	24,5	9	23,0	15,0
Ø 65	86	77,0	85,0	85,0	55	27,5	24,5	9	23,0	15,0
Ø 68	89	81,0	90,0	91,0	55	27,5	24,5	9	26,0	18,0
Ø 70	91	83,0	92,0	92,0	56	28,0	23,5	9	26,0	18,0
Ø 75	99	88,0	97,0	92,0	56	28,0	25,5	9	26,0	18,0
Ø 80	104	95,0	105,0	92,5	56	28,0	25,5	9	26,2	18,2
Ø 85	109	100,0	110,0	92,5	56	28,0	25,5	9	26,2	18,2
Ø 90	114	105,0	115,0	92,5	56	28,0	25,5	9	26,2	18,2
Ø 95	119	110,0	120,0	90,5	56	28,0	25,5	9	25,2	17,2
Ø 100	124	115,0	125,0	90,5	56	28,0	25,5	9	25,2	17,2

İkili kullanım
Balanssız
Dönme yönüne bağımsız
Çoklu yay sistemi veya
süper sinüs yay
EN 12756'ya uygun

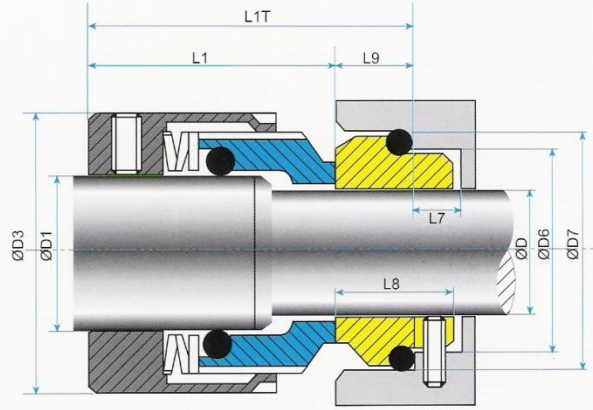
Double seal
Unbalanced
Independent of direction of rotation
multiple springs or
super sinus spring
To EN 12756

İşletme sınırları / operating limits
D = 20...100mm 0,78"...4"
p1 = 16 (25)bar 230(360) PSI
t = -80...220°C -112°F..430°F
Vg = 20 m/s 66 ft/s



18 KS 74

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



Balanssız
Dönme yönüne bağımsız
Tekli kullanım
Çoklu yay veya
süper sinüs yay
EN 12756'ya uygun

Unbalanced
Independent of direction of rotation
single seal
Multiple springs or
super sinus spring
To EN 12756

İşletme sınırları / operating limits
D = 18...200mm 0,625"...8"
p1 = 25(40) bar 360(580) PSI
t = -80...220°C -112°F..430°F
Vg = 20 m/s 66 ft/s

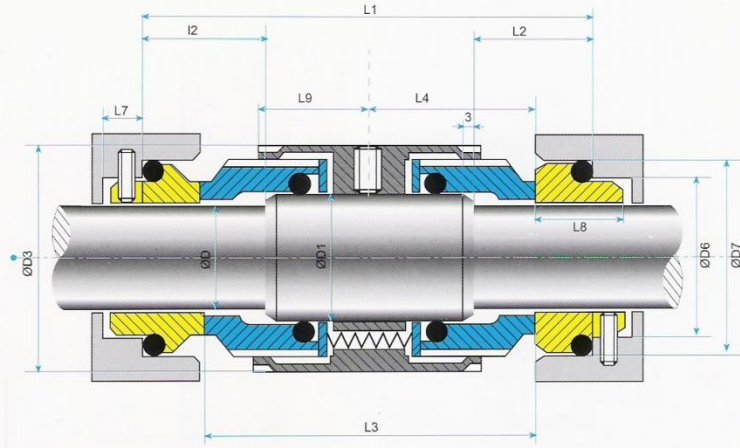


D	D1	D3	D6	D7	L1T	L1	L7	L8	L9
Ø 18	22	37	27,0	33,0	45,0	33,5	9	19,5	11,5
Ø 20	24	39	29,0	35,0	45,0	33,5	9	19,5	11,5
Ø 22	26	41	31,0	37,0	45,0	33,5	9	19,5	11,5
Ø 24	28	43	33,0	39,0	47,5	36,0	9	19,5	11,5
Ø 25	30	45	34,0	40,0	47,5	36,0	9	19,5	11,5
Ø 28	33	48	37,0	43,0	50,0	38,5	9	19,5	11,5
Ø 30	35	50	39,0	45,0	50,0	38,5	9	19,5	11,5
Ø 32	38	55	42,0	48,0	50,0	38,5	9	19,5	11,5
Ø 33	38	55	42,0	48,0	50,0	38,5	9	19,5	11,5
Ø 35	40	58	44,0	50,0	50,0	38,5	9	19,5	11,5
Ø 38	43	60	49,0	56,0	52,5	38,5	9	22,0	14,0
Ø 40	45	62	51,0	58,0	52,5	38,5	9	22,0	14,0
Ø 43	48	65	54,0	61,0	52,5	38,5	9	22,0	14,0
Ø 45	50	67	56,0	63,0	52,5	38,5	9	22,0	14,0
Ø 48	53	70	59,0	66,0	52,5	38,5	9	22,0	14,0
Ø 50	55	72	62,0	70,0	52,5	42,5	9	23,0	15,0
Ø 53	58	79	65,0	73,0	57,5	42,5	9	23,0	15,0
Ø 55	60	81	67,0	75,0	57,5	42,5	9	23,0	15,0
Ø 58	63	84	70,0	78,0	57,5	47,5	9	23,0	15,0
Ø 60	65	86	72,0	80,0	62,5	47,5	9	23,0	15,0
Ø 63	68	89	75,0	83,0	62,5	47,5	9	23,0	15,0
Ø 65	70	91	77,0	85,0	62,5	47,5	9	23,0	15,0
Ø 70	75	99	83,0	92,0	62,5	52,0	9	23,0	18,0
Ø 75	80	104	88,0	97,0	70,0	52,0	9	26,0	18,0
Ø 80	85	109	95,0	105,0	70,0	51,8	9	26,0	18,2
Ø 85	90	114	100,0	110,0	75,0	56,8	9	26,2	18,2
Ø 90	95	119	105,0	115,0	75,0	56,8	9	26,2	18,2
Ø 95	100	124	110,0	120,0	75,0	57,8	9	25,2	17,2
Ø 100	105	129	115,0	125,0	75,0	57,8	9	25,2	17,2



19 KS 74 D

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



Balanssız
Dönme yönüne bağımsız
İkili kullanım
Çoklu yay veya süper sinüs yay
EN 12756'ya uygun

Unbalanced
Independent of direction of rotation
Double seal
Multiple springs or super sinus spring
To EN 12756

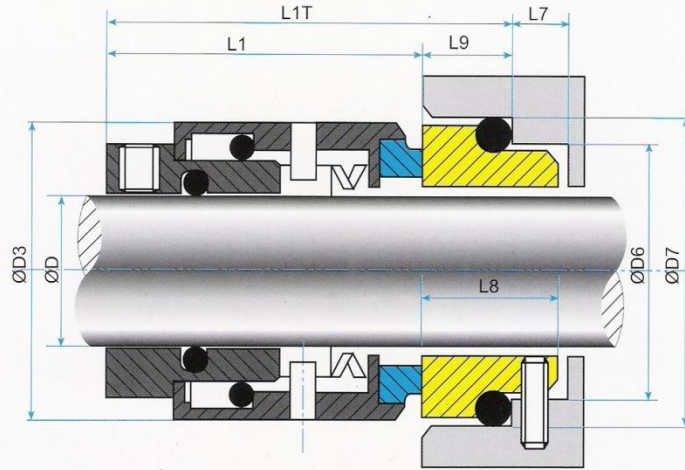
İşletme sınırları / operating limits
D = 18...200mm 0.625"...8"
p1 = 25(40) bar 360(580) PSI
t = -80...220°C -112°F..430°F
Vg = 20 m/s 66 ft/s

D	D1	D3	D6	D7	L1	L2	L3	L4	L7	L8	L9
Ø 18	22	37	27,0	33,0	76,0	20,0	53,0	26,5	9	19,5	11,5
Ø 20	24	39	29,0	35,0	76,0	20,0	53,0	26,5	9	19,5	11,5
Ø 22	26	41	31,0	37,0	76,0	20,0	53,0	26,5	9	19,5	11,5
Ø 24	28	43	33,0	39,0	77,0	20,0	54,0	27,0	9	19,5	11,5
Ø 25	30	45	34,0	40,0	77,0	20,0	54,0	27,0	9	19,5	11,5
Ø 28	33	48	37,0	43,0	77,0	20,0	54,0	27,0	9	19,5	11,5
Ø 30	35	50	39,0	45,0	77,0	20,0	54,0	27,0	9	19,5	11,5
Ø 32	38	55	42,0	48,0	79,0	20,0	56,0	28,0	9	19,5	11,5
Ø 33	38	55	42,0	48,0	79,0	20,0	56,0	28,0	9	19,5	11,5
Ø 35	40	58	44,0	50,0	80,0	20,0	57,0	28,5	9	19,5	11,5
Ø 38	43	60	49,0	56,0	85,0	23,0	57,0	28,5	9	22,0	14,0
Ø 40	45	62	51,0	58,0	85,0	23,0	57,0	28,5	9	22,0	14,0
Ø 43	48	65	54,0	61,0	85,0	23,0	57,0	28,5	9	22,0	14,0
Ø 45	50	67	56,0	63,0	84,0	23,0	56,0	28,0	9	22,0	14,0
Ø 48	53	70	59,0	66,0	84,0	23,0	56,0	28,0	9	22,0	14,0
Ø 50	55	72	62,0	70,0	93,0	25,0	63,0	31,5	9	23,0	15,0
Ø 53	58	79	65,0	73,0	97,0	25,0	67,0	33,5	9	23,0	15,0
Ø 55	60	81	67,0	75,0	97,0	25,0	67,0	33,5	9	23,0	15,0
Ø 58	63	84	70,0	78,0	104,0	25,0	74,0	37,0	9	23,0	15,0
Ø 60	65	86	72,0	80,0	104,0	25,0	74,0	37,0	9	23,0	15,0
Ø 63	68	89	75,0	83,0	109,0	25,0	79,0	39,5	9	23,0	15,0
Ø 65	70	91	77,0	85,0	98,0	25,0	68,0	34,0	9	23,0	15,0
Ø 70	75	99	83,0	92,0	112,5	28,0	76,4	38,2	9	26,0	18,0
Ø 75	80	104	88,0	97,0	112,5	28,0	76,4	38,2	9	26,0	18,0
Ø 80	85	109	95,0	105,0	112,5	28,0	76,0	38,0	9	26,2	18,2
Ø 85	90	114	100,0	110,0	112,5	28,0	76,0	38,0	9	26,2	18,2
Ø 90	95	119	105,0	115,0	112,5	28,0	76,0	38,0	9	26,2	18,2
Ø 95	100	124	110,0	120,0	110,5	28,0	76,0	38,0	9	25,2	17,2
Ø 100	105	129	115,0	125,0	110,5	28,0	76,0	38,0	9	25,2	17,2



20 KS 75

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



KS 75

Tekli kullanım
balanslı
dönme yönüne bağımsız
korumalı yay
EN 12756'ya uygun

single seal
balanced
Independent of
direction of rotation
spring product protected
To EN 12756

İşletme sınırları / operating limits

D = 18...100mm 0,625"...4"

p1 = 25(40) bar 360(580) PSI

t = -80...220°C -112°F..430°F

Vg = 20 m/s 66 ft/s

D	D3	D6	D7	L1	L1T	L7	L8	L9
Ø 18	32	27,0	33,0	30,5	37,5	9	15,0	7,0
Ø 20	34	29,0	35,0	26,0	37,5	9	15,0	7,0
Ø 22	36	31,0	37,0	26,0	37,5	9	15,0	7,0
Ø 24	38	33,0	39,0	28,5	40,0	9	15,0	7,0
Ø 25	39	34,0	40,0	28,5	40,0	9	15,0	7,0
Ø 28	42	37,0	43,0	31,0	42,5	9	15,0	7,0
Ø 30	44	39,0	45,0	31,0	42,5	9	15,0	7,0
Ø 32	47	42,0	48,0	31,0	42,5	9	15,0	7,0
Ø 33	47	42,0	48,0	31,0	42,5	9	15,0	7,0
Ø 35	49	44,0	50,0	31,0	42,5	9	15,0	7,0
Ø 38	54	49,0	56,0	31,0	45,0	9	16,0	8,0
Ø 40	56	51,0	58,0	31,0	45,0	9	16,0	8,0
Ø 43	59	54,0	61,0	31,0	45,0	9	16,0	8,0
Ø 45	61	56,0	63,0	31,0	45,0	9	16,0	8,0
Ø 48	64	59,0	66,0	31,0	45,0	9	16,0	8,0
Ø 50	66	62,0	70,0	32,5	47,5	9	17,0	9,5
Ø 53	69	65,0	73,0	32,5	47,5	9	17,0	9,5
Ø 55	71	67,0	75,0	32,5	47,5	9	17,0	9,5
Ø 58	78	70,0	78,0	37,5	52,5	9	18,0	10,5
Ø 60	80	72,0	80,0	37,5	52,5	9	18,0	10,5
Ø 63	83	75,0	83,0	37,5	52,5	9	18,0	10,5
Ø 65	85	77,0	85,0	37,5	52,5	9	18,0	10,5
Ø 68	88	81,0	90,0	37,5	52,5	9	26,0	11,0
Ø 70	90	83,0	92,0	42,0	60,0	9	18,5	11,5
Ø 75	99	88,0	97,0	42,0	60,0	9	19,0	11,5
Ø 80	104	95,0	105,0	41,8	60,0	9	19,0	11,5
Ø 85	109	100,0	110,0	41,8	60,0	9	19,0	11,5
Ø 90	114	105,0	115,0	46,8	65,0	9	20,5	19,5
Ø 95	119	110,0	120,0	47,8	65,0	9	20,5	19,5
Ø 100	124	115,0	125,0	47,8	65,0	9	20,5	19,5



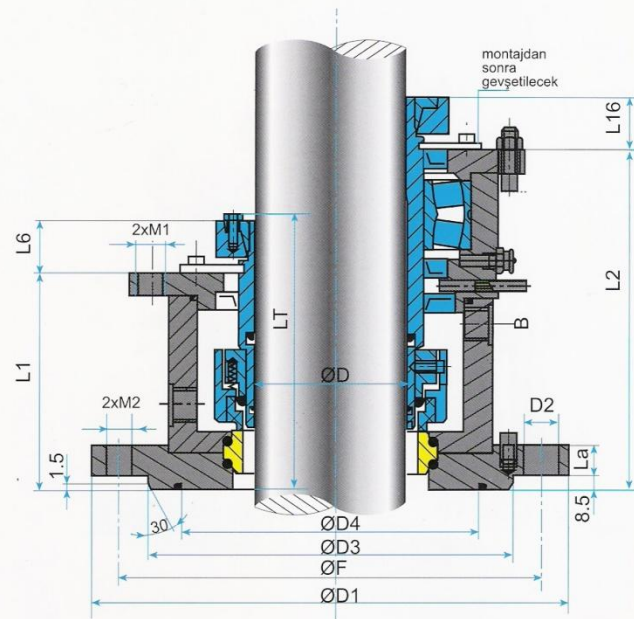
21 KTX

KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



Kartuş sistem salmastralar tekli, ikili, yıkamalı , drenaj sistemli olarak üretilmektedir. Yumuşak salmastralı pompaların mekanik salmastraya dönüşümünde, mikserlerde, pompalarda, yedek parça stoğunun en asgari düzeye indirilmesini sağlar. İleri teknoloji ürünü olması nedeni ile üstün kalite, yüksek performans ve uzun ömür sağlar.

D	D3	D4(min)	D4(max)	L1	L2	L3	LT
Ø 25	43,0	44,0	51,0	42,4	24,6	25,4	67,0
Ø 28	46,0	47,0	52,0	42,4	24,6	25,4	67,0
Ø 30	48,0	49,0	56,0	42,4	24,6	25,4	67,0
Ø 32	49,8	51,0	57,0	42,4	24,6	25,4	67,0
Ø 33	49,8	51,0	57,0	42,4	24,6	25,4	67,0
Ø 35	53,0	54,0	61,5	42,4	24,6	25,4	67,0
Ø 38	56,0	57,0	66,0	42,4	24,6	25,4	67,0
Ø 40	58,0	59,0	68,0	42,4	24,6	25,4	67,0
Ø 42	60,5	61,5	69,5	42,4	24,6	25,4	67,0
Ø 43	60,5	61,5	70,5	42,4	24,6	25,4	67,0
Ø 45	62,5	64,0	73,0	42,4	24,6	25,4	67,0
Ø 48	65,6	67,0	75,0	42,4	24,6	25,4	67,0
Ø 50	68,0	69,0	78,0	42,4	24,6	25,4	67,0
Ø 53	72,0	73,0	87,0	42,4	24,6	25,4	67,0
Ø 55	73,0	74,0	83,0	42,4	24,6	25,4	67,0
Ø 60	78,0	79,0	91,0	42,4	24,6	25,4	67,0
Ø 65	83,0	84,5	98,5	42,4	24,6	25,4	67,0
Ø 70	93,0	95,0	108,0	42,4	24,6	25,4	67,0
Ø 75	100,0	101,6	108,0	57,4	26,6	28,0	84,0
Ø 80	106,4	108,0	124,0	57,4	26,6	28,0	84,0
Ø 85	109,5	118,0	128,0	57,4	26,6	28,0	84,0
Ø 90	115,9	117,5	135,0	57,4	26,6	28,0	84,0
Ø 95	119,1	120,7	138,0	57,4	26,6	28,0	84,0
Ø 100	125,4	127,0	144,0	57,4	26,6	28,0	84,0



KRS/KRS-L

Tekli kullanım
Balanssız
Dönme yönüne bağımsız

- Single seal
- Unbalanced
- Independent of direction of rotation

İşletme sınırları / operating limits

D = 40...220mm 1,6"...8,7"

p1= vacuumdan 6 bara kadar

$$t = -110 \dots 200^{\circ}\text{C}$$
$$V_g = 2 \text{ m/s}$$

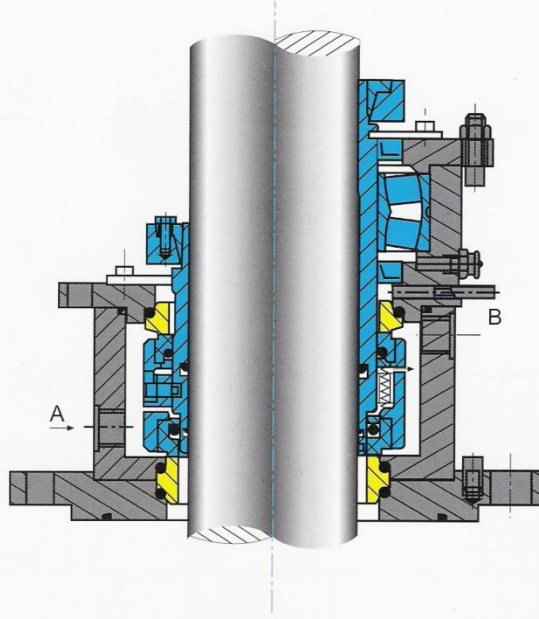
KRSL

Entegre, rulman yatak uygulamalıdır.
İşletme sınırları KRS ile aynıdır.

D	D1	D2 x M	D3	D4	L1	L2	LT	La	Lb	F	M1	M2	Z	AB
Ø 40	175	4x18	110	90	110,5	159,5	143	15	28	145	M12	M16	122	G3/8
Ø 50	240	8x18	176	135	114,5	174,5	148	17	28	210	M12	M16	157	G3/8
Ø 60	240	8x18	176	135	119,0	181,5	158	17	28	210	M12	M16	168	G3/8
Ø 80	275	8x22	204	155	133,0	217,5	168	20	34	240	M16	M20	230	G1/2
Ø 100	305	8x22	234	190	137,5	218,5	178	20	34	270	M16	M20	228	G1/2
Ø 125	330	8x22	260	215	138,5	233,5	203	20	40	295	M20	M20	268	G1/2
Ø 140	395	12x22	313	250	152,5	250,5	208	25	40	350	M20	M20	285	G1/2
Ø 160	395	12x22	313	265	161,0	253,0	213	25	40	350	M20	M20	297	G1/2
Ø 180	445	12x22	364	310	166,0	263,5	233	25	40	400	M24	M20	322	G1/2
Ø 200	445	12x22	364	310	171,0	271,0	243	25	45	400	M24	M20	357	G1/2
Ø 220	505	16x22	422	340			263	25	45	460	M24	M20		G1/2



24 KRS - D



KRS-D / KRS-LD

Çiftli kullanım

Balanssız

Dönme yönüne bağımsız

Double seal

Unbalanced

Independent of direction of rotation

İşletme sınırları / operating limits

D = 40...220mm 1,6"...8,7"

p1= vacuumdan 16 bara kadar vacuum 16 bar

t = -110...200°C (O-ringlere bağlı olarak 250°C)

Vg = 2 m/s

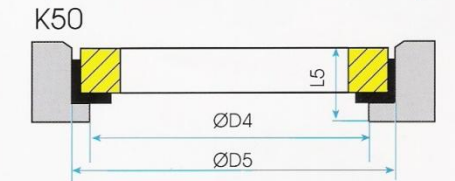
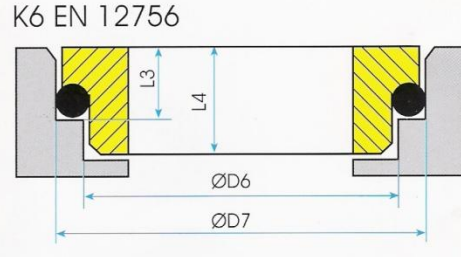
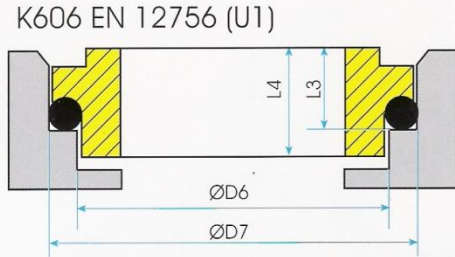
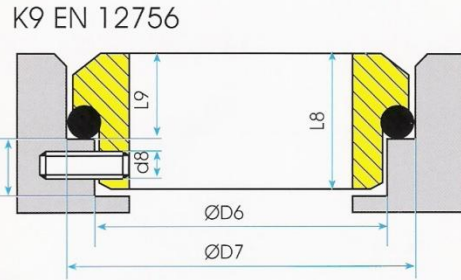
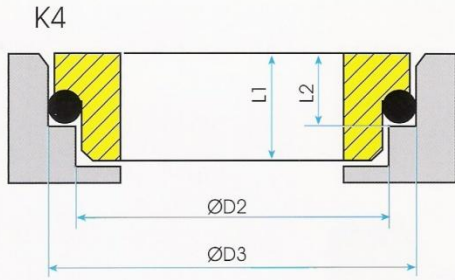
KRS-LD

Entegre, rulman yatak uygulamalıdır.

İşletme sınırları KRS-D ile aynıdır.



D	D1	D2 x M	D3	D4	L1	L2	LT	La	Lb	F	M1	M2	Z	AB
Ø 40	175	4x18	110	90	110,5	159,5	143	15	28	145	M12	M16	122	G3/8
Ø 50	240	8x18	176	135	114,5	174,5	148	17	28	210	M12	M16	157	G3/8
Ø 60	240	8x18	176	135	119,0	181,5	158	17	28	210	M12	M16	168	G3/8
Ø 80	275	8x22	204	155	133,0	217,5	168	20	34	240	M16	M20	230	G1/2
Ø 100	305	8x22	234	190	137,5	218,5	178	20	34	270	M16	M20	228	G1/2
Ø 125	330	8x22	260	215	138,5	233,5	203	20	40	295	M20	M20	268	G1/2
Ø 140	395	12x22	313	250	152,5	250,5	208	25	40	350	M20	M20	285	G1/2
Ø 160	395	12x22	313	265	161,0	253,0	213	25	40	350	M20	M20	297	G1/2
Ø 180	445	12x22	364	310	166,0	263,5	233	25	40	400	M24	M20	322	G1/2
Ø 200	445	12x22	364	310	171,0	271,0	243	25	45	400	M24	M20	357	G1/2
Ø 220	505	16x22	422	340			263	25	45	460	M24	M20		G1/2



Sabit Elemanlar: (Silisyum karbür,tungsten karbür,karbon,seramik,krom nikel çelik olarak stoklarımızda bulunmaktadır.)

K4 SABİT ELEMAN					K6 SABİT ELEMAN					K9 SABİT ELEMAN					K50 SABİT ELEMAN			
D	D2	D3	L1	L2	D6	D7	L3	L4		L7	L8	L9	d8		D4	D5	L5	
Ø 10	15,5	19,2	7,5	6,6	17,0	21,0	6,6	7,5		8,5	17,5	10,0	3,0		11,0	24,60	9,0	
Ø 12	17,5	21,6	6,5	5,6	19,0	23,0	6,6	7,5		8,5	17,5	10,0	3,0		13,5	27,80	9,0	
Ø 14	20,5	24,6	6,5	5,6	21,0	25,0	6,6	7,5		8,5	17,5	10,0	3,0		17,0	30,95	10,5	
Ø 15	20,5	24,6	7,5	6,6	23,0	27,0	6,6	7,5		8,5	17,5	10,0	3,0		17,0	30,95	10,5	
Ø 16	22,0	28,0	8,5	7,5	23,0	27,0	6,6	7,5		8,5	17,5	10,0	3,0		17,0	30,95	10,5	
Ø 18	24,0	30,0	9,0	8,0	27,0	33,0	7,5	8,5		9,0	19,5	11,5	3,0		20,0	34,15	10,5	
Ø 19	29,5	35,0	8,5	7,5	29,0	35,0	7,5	8,5		9,0	19,5	11,5	3,0		20,0	34,15	10,5	
Ø 20	29,5	35,0	8,5	7,5	29,0	35,0	7,5	8,5		9,0	19,5	11,5	3,0		21,5	37,50	10,5	
Ø 22	29,5	35,0	8,5	7,5	31,0	37,0	7,5	8,5		9,0	19,5	11,5	3,0		23,0	37,30	10,5	
Ø 24	32,0	38,0	8,5	7,5	33,0	39,0	7,5	8,5		9,0	19,5	11,5	3,0		26,5	40,50	10,5	
Ø 25	32,0	38,0	8,5	7,5	34,0	40,0	7,5	8,5		9,0	19,5	11,5	3,0		26,5	40,50	10,5	
Ø 28	36,0	42,0	10,0	9,0	37,0	43,0	7,5	8,5		9,0	19,5	11,5	3,0		29,5	47,65	12,0	
Ø 30	39,2	45,0	11,5	10,5	39,0	45,0	7,5	8,5		9,0	19,5	11,5	3,0		32,5	50,80	12,0	
Ø 32	42,2	48,0	11,5	10,5	42,0	48,0	7,5	8,5		9,0	19,5	11,5	3,0		32,5	50,80	12,0	
Ø 33	44,2	50,0	12,0	11,0	42,0	48,0	7,5	8,5		9,0	19,5	11,5	3,0		36,5	54,00	12,0	
Ø 35	46,2	52,0	12,0	11,0	44,0	50,0	7,5	8,5		9,0	19,5	11,5	3,0		36,5	54,00	12,0	
Ø 38	49,2	55,0	11,3	10,3	49,0	56,0	9,0	10,0		9,0	22,0	14,0	4,0		39,5	57,15	12,0	
Ø 40	52,2	58,0	11,8	10,8	51,0	58,0	9,0	10,0		9,0	22,0	14,0	4,0		42,0	60,35	12,0	
Ø 42	53,3	62,0	13,2	12,0	54,0	61,0	9,0	10,0		9,0	22,0	14,0	4,0		46,0	63,50	12,0	
Ø 43	53,3	62,0	13,2	12,0	54,0	61,0	9,0	10,0		9,0	22,0	14,0	4,0		46,0	63,50	12,0	
Ø 45	55,3	64,0	12,8	11,6	56,0	63,0	9,0	10,0		9,0	22,0	14,0	4,0		46,0	63,50	12,0	
Ø 48	59,7	68,4	12,8	11,6	59,0	66,0	9,0	10,0		9,0	22,0	14,0	4,0		49,0	66,70	12,0	
Ø 50	60,8	69,3	12,8	11,6	62,0	70,0	9,5	10,5		9,0	23,0	15,0	4,0		52,0	69,85	13,5	
Ø 53	63,8	72,3	13,5	12,3	65,0	73,0	11,0	12,0		9,0	23,0	15,0	4,0		55,5	73,05	13,5	
Ø 55	66,5	75,4	14,5	13,3	67,0	75,0	11,0	12,0		9,0	23,0	15,0	4,0		58,5	76,20	13,5	
Ø 58	69,5	78,4	14,5	13,3	70,0	78,0	11,0	12,0		9,0	23,0	15,0	4,0		61,5	79,40	13,5	
Ø 60	71,5	80,4	14,5	13,3	72,0	80,0	11,0	12,0		9,0	23,0	15,0	4,0		61,5	79,40	13,5	
Ø 65	76,5	85,4	14,2	13,0	77,0	85,0	11,0	12,0		9,0	23,0	15,0	4,0		68,0	92,10	16,0	
Ø 68	82,7	91,5	14,9	13,7	81,0	90,0	11,3	12,5		9,0	26,0	18,0	4,0		71,0	95,25	16,0	
Ø 70	83,0	92,0	14,2	13,0	83,0	92,0	11,3	12,5		9,0	26,0	18,0	4,0		71,0	95,25	16,0	
Ø 75	90,2	99,0	15,2	14,0	88,0	97,0	11,3	12,5		9,0	26,0	18,0	4,0		75,5	101,60	16,0	
Ø 80	95,2	104,0	16,2	15,0	95,0	105,0	12,0	13,0		9,0	26,2	18,2	4,0		84,0	114,30	20,0	
Ø 85	100,2	109,0	16,0	14,8	100,0	110,0	14,0	15,0		9,0	26,2	18,2	4,0		87,0	117,50	20,0	
Ø 90	105,2	114,0	16,0	14,8	105,0	115,0	14,0	15,0		9,0	26,2	18,2	4,0		93,5	123,85	20,0	
Ø 95	111,6	120,3	17,0	15,8	110,0	120,0	14,0	15,0		9,0	25,2	17,2	4,0		96,5	127,00	20,0	
Ø 100	114,5	123,3	17,0	15,8	115,0	125,0	14,0	15,0		9,0	25,2	17,2	4,0		103,0	133,35	20,0	



SABİT
ELEMANLAR

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KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.



YÜZEY
ELEMANLARI

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KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.

KOMPOZİT MALZEMELER

SİLİSYUM
KARBÜR
SİNER VE REAKSİYON BAĞLI



ALÜMİNYUM OKSİT
(SERAMİK) % 99,5



TUNGSTEN
KARBÜR
NİKEL VE KOBALT BAĞLI



KARBON MALZEMELER

Üretim programımızda;
yataklık ve yüzey elemanı
olarak ürettiğimiz
karbonlara istek
doğrultusunda her
türü talaşlı imalat
yapılmaktadır.



KARBON ÇEŞİTLERİ

- Antimuan emdirilmiş Karbon
- Reçine emdirilmiş Karbon
- Reçine bağlı Karbon
- Antimuan bağlı Karbon
- Elektro grafit, antimuan emdirilmiş



ÖRGÜ SALMASTRA



Saf grafit lifler (kesintisiz uzun elyaf) diyagonal şekilde örülmüştür. Grafit yapısı olması nedeni ile kendi kendini yağlama özelliğine sahiptir. Çalıştığı milleri bozmaz. Esnek oluşundan dolayı hasarlı bölgelerdeki boşlukları doldurur. Minimum sızdırmazlık sağlar. Dolgu özelliğine sahiptir. Düşük enerji sarfiyatı oluşturur, özellikle santrifüj pompalarda.

Çalışma Ortamları : Su, sıcak su, buhar, kızgın yağ, solvent buharları, viskozitesi yüksek olan akışkanlarda,

KS150	vana	piston	pompa
t°C	- 200 + 650		
p bar	220	100	80
v m/s	2,5	1,5	25
pH	1-14		

Tavsiye edilen kullanım alanları: Kazan besisi suyu pompaları vanalar mikserler, reaktörler, yüksek basınçlı pompalar v.s.



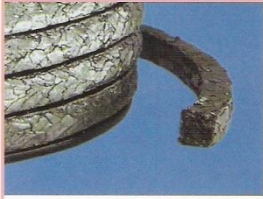
Esnek saf grafit lifler ve karbon elyaf lifler diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, buhar, kızgın yağ, solvent buharları, viskozitesi yüksek olan akışkanlarda,

Tavsiye edilen kullanım alanları: Kazan besisi suyu pompaları vanalar mikserler, reaktörler, yüksek basınçlı pompalar v.s.

Yüksek Basınç uygulamalarında üstün performans gösterir.

KS151	vana	piston	pompa
t°C	- 200 + 650		
p bar	250	120	100
v m/s	2,5	1,5	25
pH	1-14		



Saf grafit lifler kristalize edilerek diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, buhar, kızgın yağ, solvent buharları, viskozitesi yüksek olan akışkanlarda,

Tavsiye edilen kullanım alanları: Kazan besisi suyu pompaları vanalar mikserler, reaktörler, yüksek basınçlı pompalar v.s.

Yüksek Basınç ve yüksek ısı uygulamalarında üstün performans gösterir.

KS152	vana	piston	pompa
t°C	- 200 + 3000		
p bar	350	200	180
v m/s	2,5	1,5	25
pH	1-14		

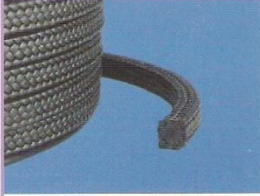


Saf grafit lifler çelik teller ile takviye edilerek diyagonal şekilde örülmüştür.

Yüksek Basınç, yüksek ısı ve vana sızdırmazlığı uygulamalarında üstün performans gösterir.

KS153	pompa	piston	vana
t°C	+260		
p bar	-	-	70
v m/s	-	-	20
pH	4-10		

ÖRGÜ SALMASTRA

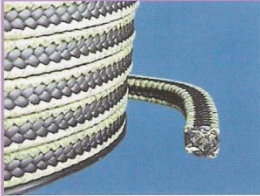


PTFE (Teflon®) bünyesine özel bir yöntem ile grafit emdirilerek elde edilmiş üstün yağlama özelliği bulunan lifler diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, atık su, sıcak su, gresler, gazlar, organik, inorganik asitler, alkali çözeltileri ve solventler gibi.

Tavsiye edilen kullanım alanları: Pompalar, mikserler, reaktörler, vakum pompaları, dişli pompalar v.b.

KS154	vana	piston	pompa
t°C	- 200 + 280		
p bar	300	200	35
v m/s	2	1,5	25
pH	0-14		

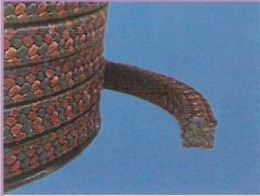


Grafit PTFE (Teflon®) ipliklerin aromatik polyamid (Aramid®) ipliklerin kombinasyonu ile diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, zayıf asitler, alkali çözeltileri ve aşındırıcı akışkanlar.

Tavsiye edilen kullanım alanları: Genel kullanımlı santrifüj ve piston pompalarında yüksek basınç uygulamalarında Yüksek Basınç uygulamalarında üniversal çözüm

KS155	vana	piston	pompa
t°C	-100+280		
p bar	350	250	50
v m/s	1,5	3	20
pH	2-12		



Grafit PTFE (Teflon®) iplikler fenolic ipliklerin kombine edilmesi ile diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, asitler, bazlar, alkali çözeltileri ve aşındırıcı akışkanlar.

Tavsiye edilen kullanım alanları: Ağır ortamlarda aşındırıcı akışkanlarda karton ve kağıt endüstrisinde, kristalize olma özelliği bulunan akışkanlarda kullanılabilir.

KS156	vana	piston	pompa
t°C	-100+280		
p bar	400	200	50
v m/s	1,5	1	20
pH	0-13		



KYNOL® fenolic iplikler PTFE (Teflon®) çözeltileri ve özel yağlayıcılar ile emprenye edilerek diyagonal şekilde örülmüştür. Düşük sürtünme kat sayısı, sertleşmeme, millerde minimum aşınma santrifüj pompalarda daha az enerji sarfiyatı gibi özelliklere sahiptir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Genel olarak sızdırmazlık istenilen karıştırıcı mikser, reaktör, santrifüj ve piston pompalarda, vanalarda kullanılır.

KS157	vana	piston	pompa
t°C	-100+260		
p bar	400	100	50
v m/s	1,5	1	15
pH	0-13		

ÖRGÜ SALMASTRA



Saf PTFE (Teflon®) liflere PTFE (Teflon®) çözeltisi empenye edilerek diyagonal şekilde örülmüştür. İçerisinde hiçbir katkı malzemesi yoktur.

Gıda sanayiinde kullanılabilir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

KS158	vana	piston	pompa
t°C	-200+280		
p bar	250	-	-
v m/s	2,5	-	-
pH	0-13		

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayiinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda



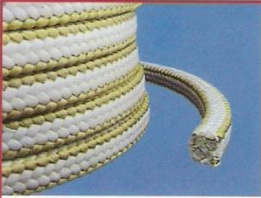
PTFE (Teflon®) bünyesine PTFE (Teflon®) çözeltisi ve kayma kabiliyetini artırıcı yağlar empenye edilerek diyagonal şekilde örülmüştür.

Gıda sanayiinde kullanılabilir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

KS159	vana	piston	pompa
t°C	- 200 + 280		
p bar	100	100	30
v m/s	1	2	12
pH	0-14		

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayiinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda



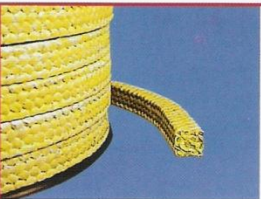
PTFE (Teflon®) iplikler ve aromatik polyamid (aramid®) iplikler kombinasyonu şeklinde diyagonal örülmüştür. Köşe örgüler aramid®, orta örgüler PTFE (Teflon®) ipliklerden oluşmaktadır.

Gıda sanayiinde kullanılabilir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

KS161	vana	piston	pompa
t°C	-200+280		
p bar	200	150	30
v m/s	1,5	1	15
pH	2-12		

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayiinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda Karton ve kağıt endüstrisinde, Kristalize olma özelliği bulunan akışkanlarda



Aromatik polyamid (aramid®) iplikler diyagonal şekilde örülmüştür.

Gıda sanayiinde kullanılabilir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayiinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda

KS160	vana	piston	pompa
t°C	-200+280		
p bar	220	100	50
v m/s	2	1,5	15
pH	2-12		

Karton ve kağıt endüstrisinde, Kristalize olma özelliği bulunan akışkanlarda

ÖRGÜ SALMASTRA



Aromatik polyamid (aramid®) ipliklere özel PTFE (Teflon®) çözeltisi empenye edilerek diyagonal şekilde örülmüştür.

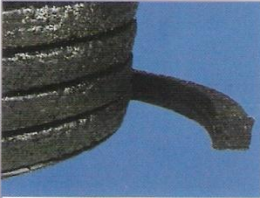
Gıda sanayiinde kullanılabilir.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda

KS162	vana	piston	pompa
t°C	-100+280		
p bar	150	100	30
v m/s	2	1,5	15
pH	2-12		

sanayinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda, santrifüj pompalar, reaktörler, mikserler Karton ve kağıt endüstrisinde, Kristalize olma özelliği bulunan akışkanlarda



Aromatik polyamid (aramid®) ipliklere özel bir yöntem ile grafit ve karbon yağlayıcılar empenye edilerek diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, atık su, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda

KS163	vana	piston	pompa
t°C	-100+280		
p bar	150	100	30
v m/s	1,5	1	20
pH	2-12		

ortamlarda, santrifüj pompalar, reaktörler, mikserler Karton ve kağıt endüstrisinde, Kristalize olma özelliği bulunan akışkanlarda, yüksek ısı oluşan ağır ve aşındırıcı akışkanlarda



Karbon elyafı ipliklere yüksek sıcaklığa dayanıklı grafit çözeltisi ve yağlayıcı malzeme empenye edilerek diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, atık su, buhar, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda

KS164	vana	piston	pompa
t°C	- 50 + 650		
p bar	200	100	35
v m/s	2,5	1,5	25
pH	0-14		

Kayma kabiliyeti yüksek olduğundan dolayı santrifüj ve piston pompalarda yağlama ve ısı iletkenliği ile enerji tasarrufu sağlar.



Karbon elyafı ipliklere PTFE (Teflon®) çözeltisi empenye edilerek diyagonal şekilde örülmüştür.

Çalışma Ortamları : Su, sıcak su, atık su, buhar, yağlar, gresler, gazlar, organik ve inorganik asitler, konsantre alkali çözeltileri solventler, potasyum, hidrokarbon ve ısı transfer yağları

Tavsiye edilen kullanım alanları: Kimya, petro kimya, gıda sanayinde, deniz suyu, çamur ve katı partiküllü aşındırıcı ortamlarda

KS165	vana	piston	pompa
t°C	-60+345		
p bar	200	100	50
v m/s	1,5	1,5	25
pH	0-14		

Kayma kabiliyeti yüksek olduğundan dolayı santrifüj ve piston pompalarda yağlama ve ısı iletkenliği ile enerji tasarrufu sağlar.



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KALE ENDÜSTRİ ÜRÜNLERİ LTD. ŞTİ.

MALZEME TABLOSU VE KODLAMALAR

En 12756 Normuna göre	KALE SEAL	YÜZEY ELEMANLARI / Karbonlar
A	C1	Antimuan emdirilmiş karbon
B1	C2	Reçine emdirilmiş karbon
B3	C3	Reçine emdirilmiş karbon
B5	C4	Reçine bağlı karbon
C	C5	Elektro grafit, Antimuan emdirilmiş
E	KL1	METALLER
G	KL2	Krom-çelik
S	KL3	Krom-nikel-molibden çelik
U1	KTC	Özel döküm Krom-nikel-molibden çelik
U2	KTC1	KARBÜRLER
U37	KTC3	Tungsten karbür kobalt bağlı
Q1	KSC1	Tungsten karbür nikel bağlı
Q2	KSC2	Tungsten karbür sıkı geçme
Q32	KSC3	Silisyum karbür sinter
V	KSR	Silisyum karbür reaksiyon bağlı
E	E	Silisyum karbür sıkı geçme
A	A	METALOKSİT
K	K	Alüminyum oksit (Seramik % 99,5)
N	N	ELASTOMERLER
P	P	Ethylene propylene (EPDM) e.g. Nordel®
V	V	Aflas®
M1	KTV	Perfluoro karbon e.g. Kalrez® Chemraz®
M2	KTE	Chloroprene e.g. Neopren®
T	T	Nitrile-Butadiene e.g. Perbunan®
Y1	Kalegraf	Fluorocarbon z.b. Viton®
E	KL1	ELASTOMERLER (KAPLI)
G	KL2	Viton®, Teflon® film kaplı
M	KL4	EPDM, Viton®, Teflon® film kaplı
		ELASTOMER OLMAYANLAR
		PTFE (Teflon®)
		Saf grafit
		YAY VE KONSTRÜKSİYON MALZEMELERİ
		Krom-çelik
		Krom-nikel-molibden çelik
		Hastelloy® C4
		Aramid®, Teflon®, Registered trade mark DUPONT.
		Aflas® Registered trade mark Asahi Corp.
		Viton® Registered trade mark DUPONT DOW ELASTOMERS.

**KALE ENDÜSTRİ ÜRÜNLERİ GIDA VE ELEKTRONİK SAN. TİC. LTD. ŞTİ.**

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