

K702 is a two piece double-acting sealing set which consists of one special mixture PTFE profile ring and an O-ring as energizing element.

## **PRODUCT ADVANTAGES**

- · Can be used at high pressures and low peripheral speeds
- · Low friction, free of stick-slip
- Simple groove design and low axial housing heights
- · Long service life
- · High sliding speed
- Wide range of temperature and chemicals depending on the o-ring material
- Minimum static and dynamic friction coefficient for a minimum energy loss and operating temperature

## **APPLICATION**

Mobile hydraulics, grippers and rotary joints.

MATERIAL		CODE
NBR	70 SHORE A	NB7001
PTFE		PT6003

OPERATING CONDI	OPERATING CONDITIONS  IEDIA Mineral oils HFA and HFC		
MEDIA	Mineral oils	HFA and	HFC
	(D <b>I</b> N 51524)	HFB	
TEMPERATURE	-30°C	+5°C	-30°C
	+105°C	+60°C	+60°C
PRESSURE	≤300 Bar	≤300 Bar	≤300 Bar
PERIPHERAL SPEED	≤5.0 m/sec	≤5.0 m/sec	≤5.0 m/sec

Note: The above data are maximum values and cannot be used at the same time.

SURFACE ROUG	HNESS	Ra	Rmax
Sliding Surface	Ød	≤0.2 µm	≤2.0 µm
Groove Base	ØD	≤1.6 µm	≤6.3 µm
Groove Flanks	В	≤3.2 µm	≤16 µm

Note: It is recommended to have 50% to 90% of the working surface material contact area value.

## **INSTALLATION**

We recommend using special assembly tool (See section; Hydraulic Sealing Elements General Installation Information). It is very important that the assembly tools must be of soft material and have no sharp edges. Before installation the sealing element must be oiled with system oil.

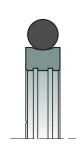
## **NOTES**

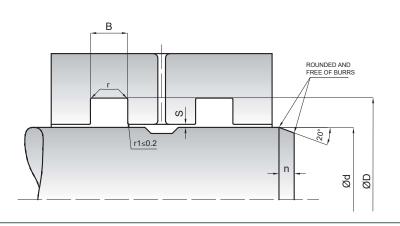
For special applications that require high temperatures or resistance to chemicals, rod seal can be manufactured with special mixture PTFE and FKM. The permissible sealing gap values of K702 rod seal for rotating application is given in the below table.

PERMISSIBLE SEALING GAP			
B (mm)		Smax (mm)	
	100 bar	200 bar	300 bar
2.2	0.15	0.10	0.075
3.2	0.20	0.15	0.10
4.2	0.20	0.15	0.10
6.3	0.30	0.20	0.15
8.1	0.30	0.20	0.15

Note: The largest sealing gap value occurring on the non-pressurized side of the seal is vital for the function of the seal and in this respect it is quite important to use the S value lower than the above indicated numbers.







K702-015         15         19.9         2.2         0.4         2.0         17           K702-020         20         27.5         3.2         0.6         2.5         21           K702-020/1         20         24.9         2.2         0.4         2.0         21           K702-025         25         32.5         3.2         0.6         2.5         28           K702-025/1         25.4         32.9         3.2         0.6         2.5         28           K702-030         30         37.5         3.2         0.6         2.5         33           K702-035         35         42.5         3.2         0.6         2.5         33           K702-040         40         51         4.2         0.8         3.5         50           K702-045         45         56         4.2         0.8         3.5         55           K702-045         45         56         4.2         0.8         3.5         55           K702-050         50         61         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65	O-Ring
K702-020         20         27.5         3.2         0.6         2.5         21           K702-020/1         20         24.9         2.2         0.4         2.0         21           K702-025         25         32.5         3.2         0.6         2.5         28           K702-025/1         25.4         32.9         3.2         0.6         2.5         28           K702-030         30         37.5         3.2         0.6         2.5         33           K702-035         35         42.5         3.2         0.6         2.5         33           K702-040         40         51         4.2         0.8         3.5         50           K702-045         45         56         4.2         0.8         3.5         50           K702-050         50         61         4.2         0.8         3.5         55           K702-055         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-065         65         76         4.2         0.8         3.5         75	I.00x1.78
K702-020/1         20         24.9         2.2         0.4         2.0         21           K702-025         25         32.5         3.2         0.6         2.5         28           K702-025/1         25.4         32.9         3.2         0.6         2.5         28           K702-030         30         37.5         3.2         0.6         2.5         33           K702-035         35         42.5         3.2         0.6         2.5         33           K702-040         40         51         4.2         0.8         3.5         42           K702-045         45         56         4.2         0.8         3.5         50           K702-055         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-060/1         60         75.5         6.3         1.2         5         66           K702-065         65         76         4.2         0.8         3.5         75           K702-080         80         91         4.2         0.8         3.5         76	'.17x1.78
\$702-025         25         32.5         3.2         0.6         2.5         28           \$702-025/1         25.4         32.9         3.2         0.6         2.5         28           \$702-030         30         37.5         3.2         0.6         2.5         33           \$702-035         35         42.5         3.2         0.6         2.5         37           \$702-040         40         51         4.2         0.8         3.5         42           \$702-045         45         56         4.2         0.8         3.5         56           \$702-045         45         56         4.2         0.8         3.5         55           \$702-050         50         61         4.2         0.8         3.5         55           \$702-055         55         66         4.2         0.8         3.5         55           \$702-060         60         71         4.2         0.8         3.5         65           \$702-065         65         76         4.2         0.8         3.5         75           \$702-070         70         81         4.2         0.8         3.5         78	.89x2.62
K702-025/1         25.4         32.9         3.2         0.6         2.5         28           K702-030         30         37.5         3.2         0.6         2.5         33           K702-035         35         42.5         3.2         0.6         2.5         37           K702-040         40         51         4.2         0.8         3.5         44           K702-045         45         56         4.2         0.8         3.5         50           K702-050         50         61         4.2         0.8         3.5         55           K702-055         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-060/1         60         75.5         6.3         1.2         5         66           K702-070         70         81         4.2         0.8         3.5         75           K702-075         75         86         4.2         0.8         3.5         78           K702-080         80         91         4.2         0.8         3.5         85	.95x1.78
K702-030         30         37.5         3.2         0.6         2.5         33           K702-035         35         42.5         3.2         0.6         2.5         37           K702-040         40         51         4.2         0.8         3.5         44           K702-045         45         56         4.2         0.8         3.5         56           K702-050         50         61         4.2         0.8         3.5         53           K702-065         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-060         60         75.5         6.3         1.2         5         66           K702-060         65         76         4.2         0.8         3.5         65           K702-060         65         76         4.2         0.8         3.5         66           K702-070         70         81         4.2         0.8         3.5         78           K702-080         80         91         4.2         0.8         3.5         88           K70	3.25x2.62
K702-035         35         42.5         3.2         0.6         2.5         37           K702-040         40         51         4.2         0.8         3.5         44           K702-045         45         56         4.2         0.8         3.5         50           K702-050         50         61         4.2         0.8         3.5         53           K702-055         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-060/1         60         75.5         6.3         1.2         5         66           K702-065         65         76         4.2         0.8         3.5         65           K702-065         65         76         4.2         0.8         3.5         65           K702-070         70         81         4.2         0.8         3.5         75           K702-080         80         91         4.2         0.8         3.5         85           K702-085         85         96         4.2         0.8         3.5         10           K70	3.25x2.62
K702-035         35         42.5         3.2         0.6         2.5         37           K702-040         40         51         4.2         0.8         3.5         44           K702-045         45         56         4.2         0.8         3.5         50           K702-050         50         61         4.2         0.8         3.5         53           K702-055         55         66         4.2         0.8         3.5         55           K702-060         60         71         4.2         0.8         3.5         65           K702-060/1         60         75.5         6.3         1.2         5         66           K702-065         65         76         4.2         0.8         3.5         65           K702-065         65         76         4.2         0.8         3.5         65           K702-070         70         81         4.2         0.8         3.5         75           K702-080         80         91         4.2         0.8         3.5         85           K702-085         85         96         4.2         0.8         3.5         10           K70	3.00x2.62
(702-040       40       51       4.2       0.8       3.5       44         (702-045       45       56       4.2       0.8       3.5       50         (702-050       50       61       4.2       0.8       3.5       53         (702-055       55       66       4.2       0.8       3.5       59         (702-060       60       71       4.2       0.8       3.5       65         (702-060/1       60       75.5       6.3       1.2       5       66         (702-065       65       76       4.2       0.8       3.5       75         (702-070       70       81       4.2       0.8       3.5       75         (702-075       75       86       4.2       0.8       3.5       85         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       94         (702-095       95       106       4.2       0.8       3.5       10         (702-109       10       111       4.2       0.8       3.5       10         (702-105<	7.77x2.62
(702-045       45       56       4.2       0.8       3.5       50         (702-050       50       61       4.2       0.8       3.5       53         (702-055       55       66       4.2       0.8       3.5       59         (702-060       60       71       4.2       0.8       3.5       65         (702-060/1       60       75.5       6.3       1.2       5       66         (702-065       65       76       4.2       0.8       3.5       69         (702-070       70       81       4.2       0.8       3.5       75         (702-075       75       86       4.2       0.8       3.5       85         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       96         (702-090       90       101       4.2       0.8       3.5       106         (702-1095       95       106       4.2       0.8       3.5       106         (702-100       100       111       4.2       0.8       3.5       111         (70	I.04x3.53
6702-050       50       61       4.2       0.8       3.5       53         6702-055       55       66       4.2       0.8       3.5       59         6702-060       60       71       4.2       0.8       3.5       65         6702-060/1       60       75.5       6.3       1.2       5       66         6702-065       65       76       4.2       0.8       3.5       69         6702-070       70       81       4.2       0.8       3.5       75         6702-075       75       86       4.2       0.8       3.5       78         6702-080       80       91       4.2       0.8       3.5       85         6702-085       85       96       4.2       0.8       3.5       88         6702-090       90       101       4.2       0.8       3.5       106         6702-105       95       106       4.2       0.8       3.5       106         6702-100       100       111       4.2       0.8       3.5       116         6702-115       115       126       4.2       0.8       3.5       112         6	).39x3.53
(702-055       55       66       4.2       0.8       3.5       59         (702-060       60       71       4.2       0.8       3.5       65         (702-060/1       60       75.5       6.3       1.2       5       66         (702-065       65       76       4.2       0.8       3.5       69         (702-070       70       81       4.2       0.8       3.5       75         (702-075       75       86       4.2       0.8       3.5       78         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       88         (702-090       90       101       4.2       0.8       3.5       10         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       11         (702-105       105       116       4.2       0.8       3.5       11         (702-110       110       121       4.2       0.8       3.5       12         (70	3.57x3.53
6702-060       60       71       4.2       0.8       3.5       65         6702-060/1       60       75.5       6.3       1.2       5       66         6702-065       65       76       4.2       0.8       3.5       65         6702-070       70       81       4.2       0.8       3.5       75         6702-075       75       86       4.2       0.8       3.5       78         6702-080       80       91       4.2       0.8       3.5       85         6702-085       85       96       4.2       0.8       3.5       88         6702-090       90       101       4.2       0.8       3.5       100         6702-095       95       106       4.2       0.8       3.5       100         6702-100       100       111       4.2       0.8       3.5       110         6702-105       105       116       4.2       0.8       3.5       111         6702-110       110       121       4.2       0.8       3.5       120         6702-120       120       131       4.2       0.8       3.5       120	9.92x3.53
(702-060/1       60       75.5       6.3       1.2       5       66         (702-065       65       76       4.2       0.8       3.5       69         (702-070       70       81       4.2       0.8       3.5       75         (702-075       75       86       4.2       0.8       3.5       78         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       88         (702-090       90       101       4.2       0.8       3.5       10         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       11         (702-105       105       116       4.2       0.8       3.5       11         (702-110       110       121       4.2       0.8       3.5       12         (702-125       125       136       4.2       0.8       3.5       12         (702-130       130       141       4.2       0.8       3.5       13 <td>5.10x3.53</td>	5.10x3.53
(702-065)       65       76       4.2       0.8       3.5       69         (702-070)       70       81       4.2       0.8       3.5       75         (702-075)       75       86       4.2       0.8       3.5       78         (702-080)       80       91       4.2       0.8       3.5       85         (702-085)       85       96       4.2       0.8       3.5       88         (702-090)       90       101       4.2       0.8       3.5       10         (702-095)       95       106       4.2       0.8       3.5       10         (702-100)       100       111       4.2       0.8       3.5       11         (702-105)       105       116       4.2       0.8       3.5       11         (702-110)       110       121       4.2       0.8       3.5       11         (702-120)       120       131       4.2       0.8       3.5       12         (702-125)       125       136       4.2       0.8       3.5       12         (702-130)       130       141       4.2       0.8       3.5       13 <td>5.04x5.33</td>	5.04x5.33
(702-070       70       81       4.2       0.8       3.5       75         (702-075       75       86       4.2       0.8       3.5       78         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       88         (702-090       90       101       4.2       0.8       3.5       10         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       10         (702-105       105       116       4.2       0.8       3.5       11         (702-110       110       121       4.2       0.8       3.5       11         (702-115       115       126       4.2       0.8       3.5       12         (702-120       120       131       4.2       0.8       3.5       12         (702-125       125       136       4.2       0.8       3.5       12         (702-130       130       141       4.2       0.8       3.5       13 <td>9.44x3.53</td>	9.44x3.53
(702-075       75       86       4.2       0.8       3.5       78         (702-080       80       91       4.2       0.8       3.5       85         (702-085       85       96       4.2       0.8       3.5       88         (702-090       90       101       4.2       0.8       3.5       10         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       10         (702-105       105       116       4.2       0.8       3.5       11         (702-110       110       121       4.2       0.8       3.5       12         (702-115       115       126       4.2       0.8       3.5       12         (702-120       120       131       4.2       0.8       3.5       12         (702-125       125       136       4.2       0.8       3.5       12         (702-130       130       141       4.2       0.8       3.5       13	5.79x3.53
(702-080       80       91       4.2       0.8       3.5       85         (702-085)       85       96       4.2       0.8       3.5       88         (702-090)       90       101       4.2       0.8       3.5       94         (702-095)       95       106       4.2       0.8       3.5       10         (702-100)       100       111       4.2       0.8       3.5       110         (702-105)       105       116       4.2       0.8       3.5       110         (702-110)       110       121       4.2       0.8       3.5       113         (702-115)       115       126       4.2       0.8       3.5       120         (702-120)       120       131       4.2       0.8       3.5       123         (702-125)       125       136       4.2       0.8       3.5       129         (702-130)       130       141       4.2       0.8       3.5       136	3.97x3.53
(702-085       85       96       4.2       0.8       3.5       88         (702-090       90       101       4.2       0.8       3.5       94         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       110         (702-105       105       116       4.2       0.8       3.5       110         (702-110       110       121       4.2       0.8       3.5       113         (702-115       115       126       4.2       0.8       3.5       120         (702-120       120       131       4.2       0.8       3.5       123         (702-125       125       136       4.2       0.8       3.5       129         (702-130       130       141       4.2       0.8       3.5       136	5.32x3.53
(702-090       90       101       4.2       0.8       3.5       92         (702-095       95       106       4.2       0.8       3.5       10         (702-100       100       111       4.2       0.8       3.5       104         (702-105       105       116       4.2       0.8       3.5       110         (702-110       110       121       4.2       0.8       3.5       113         (702-115       115       126       4.2       0.8       3.5       120         (702-120       120       131       4.2       0.8       3.5       123         (702-125       125       136       4.2       0.8       3.5       129         (702-130       130       141       4.2       0.8       3.5       136	3.49x3.53
(702-095       95       106       4.2       0.8       3.5       100         (702-100       100       111       4.2       0.8       3.5       104         (702-105       105       116       4.2       0.8       3.5       110         (702-110       110       121       4.2       0.8       3.5       113         (702-115       115       126       4.2       0.8       3.5       120         (702-120       120       131       4.2       0.8       3.5       123         (702-125       125       136       4.2       0.8       3.5       120         (702-130       130       141       4.2       0.8       3.5       136	i.84x3.53
(702-100     100     111     4.2     0.8     3.5     104       (702-105     105     116     4.2     0.8     3.5     116       (702-110     110     121     4.2     0.8     3.5     113       (702-115     115     126     4.2     0.8     3.5     126       (702-120     120     131     4.2     0.8     3.5     126       (702-125     125     136     4.2     0.8     3.5     126       (702-130     130     141     4.2     0.8     3.5     136	1.19x3.53
(702-105     105     116     4.2     0.8     3.5     110       (702-110     110     121     4.2     0.8     3.5     113       (702-115     115     126     4.2     0.8     3.5     120       (702-120     120     131     4.2     0.8     3.5     123       (702-125     125     136     4.2     0.8     3.5     129       (702-130     130     141     4.2     0.8     3.5     136	1.1 <i>3</i> x3.53 1.37x3.53
(702-110       110       121       4.2       0.8       3.5       113         (702-115       115       126       4.2       0.8       3.5       120         (702-120       120       131       4.2       0.8       3.5       123         (702-125       125       136       4.2       0.8       3.5       129         (702-130       130       141       4.2       0.8       3.5       136	1.37x3.33 ).72x3.53
(702-115     115     126     4.2     0.8     3.5     126       (702-120     120     131     4.2     0.8     3.5     126       (702-125     125     136     4.2     0.8     3.5     129       (702-130     130     141     4.2     0.8     3.5     136	
(702-120     120     131     4.2     0.8     3.5     123       (702-125     125     136     4.2     0.8     3.5     129       (702-130     130     141     4.2     0.8     3.5     136	3.90x3.53
(702-125     125     136     4.2     0.8     3.5     129       (702-130     130     141     4.2     0.8     3.5     136	0.24x3.53
K702-130         130         141         4.2         0.8         3.5         136	3.40x3.53
	9.77x3.53
140 151 4.2 0.8 3.5 145 Telephone 140 151 4.2 1.8 3.5 145 Telephone 140 151 4.2 145 Telephone 140 151 4.2 145 Telephone 140 151 4.2	5.12x3.53
	5.64x3.53
	3.82x3.53
	3.12x5.33
	4.70x3.53
	1.05x3.53
	3.75x3.53
	3.92x5.33
	5.27x5.33
(702-220     220     235.5     6.3     1.2     5     227	7.97x5.33
	7.02x5.33
(702-250     250     265.5     6.3     1.2     5     253	3.57x5.33
(702-300	4.17x6.99