TENUTE TR/1 –TR/2 –TR/3 sealing rings

TENUTE TR/1 *model, with traditional profile, is suitable for all normal applications, and withstand an operating pressure up to a maximum of 0.5 bar.*
This section has a rigid rubberized fabric back and a particularly flexible sealing lip, suitable to bear small shaft misalignments.
The spring set into the lip ensures a constant load suitable to ensure sealing over time.
TR/1 *-endless form- can be manufactured up to a diameter of 2,500 mm.*
An important version of TR/1 model is TR/1 Split, *which facilitates the assembly.*

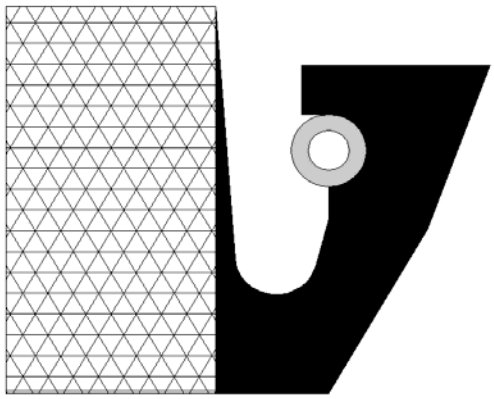

Figure 1

Obviously, this production offers to installers the opportunity to work in limit situations, where it would be difficult or even impossible to use common endless rings.
Both solutions, TR/1 *endless,* TR/1 *split, require the use of a retaining plate for a correct operation.*

This model is interchangeable with TR/2 and TR/3.

The **TENUTE TR/2** *model is the evolution of TR/1, and, compared to this last, it introduces some improvements concerning the profile.*
This section has a rigid rubberized fabric back and a particularly flexible sealing lip, suitable to bear possible small shaft misalignments, and a max pressure of 0.5 bar.
The contact surface between lip and shaft has been reduced to improve sealing and decrease the temperature generated by friction.
Furthermore, the sealing lip chamfer reduces the risk of its overturn, thus facilitating the shaft assembly.

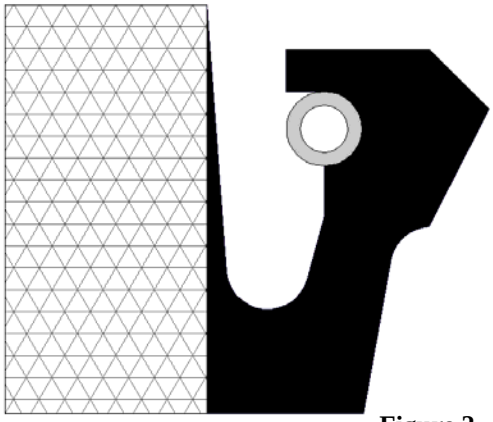

Figure 2

TR/2 *- endless form - can be manufactured up to a diameter of 2,500 mm.*
An important version of TR/2 model, is the TR/2 Split *which facilitates the assembly.*
Obviously, this production offers to installers the opportunity to work in limit situations, where it would be difficult or even impossible to use normal endless rings.
Both solutions, TR/2 *endless,* TR/2 *split, require a retaining plate for a correct operation.*

This model is interchangeable with TR/1 and TR/3.

TR/3

TENUTE TR/3 *ring is the technical improvement of sealing rings for* TR/1 *and* TR/2 *rotary shafts, achieved thanks to our company experience over years.*
The use of up-to-date materials, together with a profile having the best features of the previous models, allow to enhance performances and reduce maintenance time.

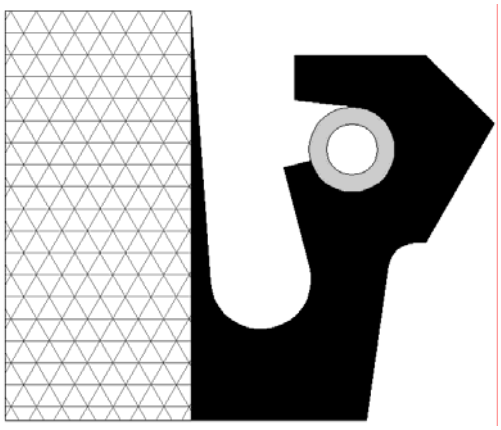

Figure 3

This improvement has been achieved thanks to the close co-operation between our Technical Department, the laboratory technicians and some important customers, who, as users, made their plants available to perform final texts.

The accurate study of the profile, the application of specific rules on the geometric ratio of the various section areas, allowed to manufacture tough seal which are, at the same time, elastic in strategic points.
We can therefore state that TR/3 *differs in the solid back and in the lip particularly tough in the working area, which is provided with a certain flexibility thus enabling it to bear possible shaft misalignments and a max pressure of 0.5 bar.*

Furthermore, the preloading spring housing has been carefully studied in order to prevent its slipping out during the most critical working conditions.
Each standard TR/3, *except in particular cases, has the back manufactured with a tough material, such as high resistance rubberized fabric, connected to a nitrile elastomer loaded with PTFE, in the lip and body area.*
The exclusive features of this model can be summarized as follows:

- *Improved resistance to possible shaft misalignment.*
- *Decrease of the radial force exerted on the shaft.*
- *Friction decrease and consequent temperature decrease.*
- *More protected spring to avoid the slipping out from the housing.*
- *Reduced spring preload.*
- *Absence of external metallic parts and consequent prevention of damages to the seal housing.*

TR/3 *- endless form- can be manufactured up to a diameter of 2,500 mm.*
An important version of TR/3 model is the TR/3 Split, *which facilitates the assembly.*
Obviously, this production offers to installers the opportunity to work in limit situations where it would be difficult or even impossible to use normal endless rings. Both solutions, TR/3 *endless,* TR/3 *split, require a retaining plate for a correct operation.This model is interchangeable with TR/1 and TR/2.*

The standard production is in Nitril elastomer NBR added with Ptfe, but for particular condition of employ, it can be produced in: HNBR hydrogenated nitril elastomer, MQ silicon elastomer, FKM fluoro carbon elastomer.
In the table 1 there are the admissible working temperature (minimum, maximum and maximum point) for this kind of material.

MATERIAL	TEMPERATURE C°
NBR	-30° +100°(120°)
HNBR	-40° +150°(175°)
MQ	-50° +200°(250°)
FKM	-20° +200°(250°)

table 1

Assembly of TR/1 – TR/2 – TR/3 sealing rings

The drawing shown in figure 4 detail the size of housings and the assembly of one of the above mentioned models. The size and housings tolerances are the same for all the three types.
Peculiar applications or requirements different from those detailed are to be agreed with our Technical Department.

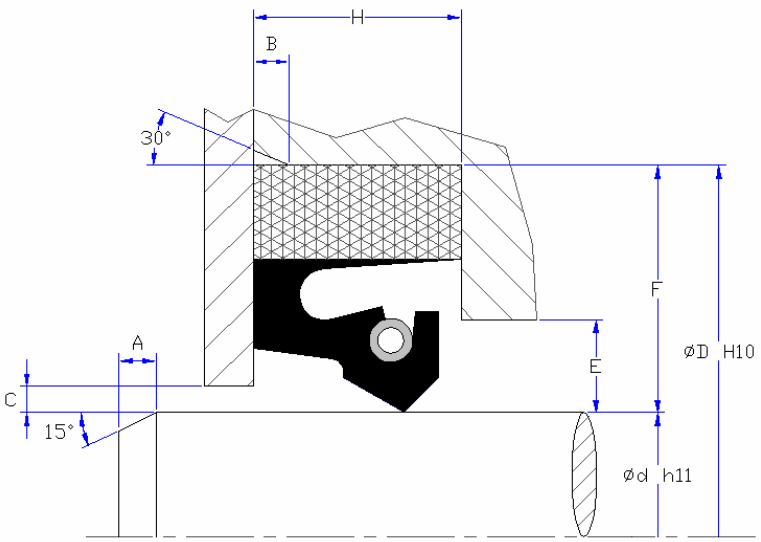

Figure 4

Tolerance and roughness of the metallic parts

Housing Height tolerance			Shaft chamfers			Housing chamfer	
H (mm)	(mm)		Ød(mm)		**A minimum**	**H**(mm)	**B**(mm)
UP TO 15	0 / -0,1		OVER	UP TO	(mm)	10	1
OVER	+ / -0,1		3	50	5	15	1.5
			50	250	10	20	2
			250	800	15	30	3
			800	1500	20	40	4
			1500	2500	25		
C maximum = 3mm.					**E** maximum =0,5F		

SURFACES FINISHING

A roughness of Ra 0.2/0.6 µm is recommended for the shaft, in normal applications, while in case of high speeds, a finishing of 0.2/0.4 µm is recommended.
Furthermore, in case of water, it is advisable to perform chromium plating of the shaft/sealing lip contact surfaces, in order to avoid a rapid wear due to iron oxides that are removed by the sealing lip. A finish turning is enough for housings.

We suggest to ask our Technical Department for more information, for the assembling and the applications.

Tooling List Up-To Date on 04_05_2005

Ød	ØD	H	PROFILE
8	22	7	TR/1
12	24	7	TR/1
15	35	10	TR/1
17	28	7	TR/2
22	32	6	TR/2
22	36	7	TR/1
24	40,1	10	TR/1
25	38	8	TR/3
25	40	8	TR/1
25	47	10	TR/1
25	50	10	TR/3
25	51,8	12,5	TR/1
28	47	7	TR/1
28	50	10	TR/3
28,5	46,5	10	TR/1
30	40	8	TR/1
30	48	8	TR/3
30	50	10	TR/3
30	52	10	TR/3
30	52	10	TR/1
30,16	50	10	TR/1
35	47	7	TR/1
35	50	10	TR/1
35	52	8	TR/1
35	55	10	TR/1
35	57	10	TR/1
35	60	10	TR/3
38	57	10	TR/1
38,1	53,98	11,11	TR/3
38,1	60	10	TR/1
40	52	8	TR/1
40	55	8	TR/1
40	58	10	TR/1
40	62	12	TR/1
40	65	11	TR/1
40	68	15,62	TR/1
42	65	10	TR/3
42	67	11	TR/1
42,86	65	10	TR/1
44	65	11	TR/1
44,4	73,1	10	TR3
45	60	7	TR/3
45	60	9	TR/1
45	62	10	TR/1
45	62	12	TR/3
45	62	8	TR/3
45	62	9	TR/3
45	65	10	TR/1
45	65	7	TR/1
45	65	8	TR/1
45	68	12	TR/1
45	70	11	TR/2
48	66	10	TR/1
49,174	68,224	9,525	TR/1
49,21	70	10	TR/1
50	65	8	TR/1
50	70	10	TR/3
50	70	10	TR/1
50	72	10	TR/3
50	72	12	TR/2
50	72	8	TR/3
50	75	11	TR/2
50,8	69,85	12,7	TR/3
50,8	80,95	11	TR/1
50,8	81	13	TR/1
54	74,6	9,5	TR/3
54	79,4	11	TR/3
55	69	8	TR/1
55	70	8	TR/3
55	72	10	TR/1
55	72	8	TR/3
55	75	10	TR/1
55	75	12	TR/1
55	76	12	TR/3
55	80	10	TR/1
55	80	11	TR/3
55	80	12	TR/1
55	80	12	TR/3
58	72	10	TR/1
58	80	12	TR/1
58	80	17	TR/1
58,7	79,4	9,5	TR/3
60	74	8	TR/1
60	78	10	TR/1

Ød	ØD	H	PROFILE
60	80	10	TR/1
60	80	10	TR/3
60	80	11	TR/1
60	80	12	TR/1
60	85	11	TR/3
60	86	10	TR/3
60	90	13	TR/3
64	85	12	TR/1
64	85	13	TR/1
65	80	12	TR/1
65	80	8	TR/1
65	85	10	TR/3
65	85	12	TR/1
65	90	11	TR/3
65	90	12	TR/1
65	95	10	TR/3
68	90	10	TR/2
68	90	12	TR/2
69,8	85,7	7,9	TR/3
69,8	88,9	9,52	TR/1
69,85	95,2	9,5	TR/1
69,85	95,25	12,7	TR/3
69,85	101,6	12,7	TR/3
70	90	10	TR/3
70	90	10	TR/2
70	90	12	TR/1
70	90	7	TR/2
70	95	12	TR/1
70	102	12,5	TR/1
72	100	10	TR/3
74	90	10	TR/1
74,6	92	9,5	TR/3
75	95	10	TR/1
75	95	12,5	TR/3
75	95	12,5	TR/1
75	95	13	TR/1
75	100	12	TR/3
75	105	15	TR/1
75	105	15	TR/3
75	107	12,5	TR/1
76,2	95,25	11,11	TR/1

Ød	ØD	H	PROFILE
76,5	104,5	12	TR/1
77,5	104,5	12	TR/1
78,5	104,5	12	TR/2
80	100	10	TR/3
80	100	10	TR/1
80	100	10	TR/2
80	100	13	TR/1
80	100	8	TR/3
80	105	12	TR/1
80	110	13	TR/1
80	112	12,5	TR/1
80	112	12,5	TR/3
82	101,6	6,35	TR/1
82,5	101,6	12	TR/1
82,5	101,6	6,35	TR/1
82,55	105	12	TR/2
82,55	110	12	TR/3
82,55	114,3	12,7	TR/1
85	102	13	TR/3
85	105	10	TR/3
85	110	12,5	TR/3
85	110	12,5	TR/1
85	110	13	TR/2
85	110	13	TR/2
85	110	13	TR/2
85	115	16	TR/1
85	117	12,5	TR/1
85	117	12,5	TR/3
85	120	12	TR/1
85,6	106,37	8,66	TR/3
85,725	111,125	15,875	TR/1
88	126	12	TR/3
88,9	111,1	9,52	TR/3
88,9	114,3	12,7	TR/3
88,9	127	14,3	TR/3
90	110	10	TR/1
90	110	10	TR/3
90	110	12	TR/3
90	110	13	TR/1
90	115	12	TR/3
90	115	15	TR/1

Ød	ØD	H	PROFILE
90	120	13	TR/3
90	122	12,5	TR/1
90	130	12	TR/3
92	120	13	TR/1
92	120	13	TR/3
92,08	127	12,7	TR/3
93	127	13	TR/3
95	115	10	TR/3
95	120	10	TR/3
95	120	10	TR/3
95	120	13	TR/1
95	120	13	TR/3
95	120,4	9,5	TR/1
95	127	12,5	TR/3
95	127	12,5	TR/1
95	135	18	TR/1
95,25	127	15,875	TR/3
97	120	13	TR/2
98	115	9	TR/3
98	125	13	TR/3
98,4	123,88	12,7	TR/3
100	115	9	TR/1
100	120	10	TR/3
100	120	12	TR/1
100	120	13	TR/1
100	125	12	TR/1
100	125,4	12,7	TR/1
100	127	13	TR/3
100	128,5	9,5	TR/3
100	130	12	TR/3
100	130	12	TR/2
100	130	13	TR/3
100	130	16	TR/3
100	132	12,5	TR/1
100	140	16	TR/3
100	140	18	TR/1
100,01	130,17	11,9	TR/1
100,01	130,17	15,875	TR/3
100,01	139,69	17,85	TR/1
101,6	126,97	12,7	TR/1
101,6	127	12,7	TR/3

Ød	ØD	H	PROFILE
101,6	133,35	12,7	TR/3
101,6	136,52	19,05	TR/1
102,158	134,778	12,4	TR/3
104,77	142,87	15,875	TR/1
105	130	12	TR/3
105	130	12	TR/1
105	130	13	TR/1
105	133,6	12,7	TR/1
105	135	12	TR/1
105	135	13	TR/1
105	136,75	12,7	TR/1
105	143	16	TR/1
105	145	16	TR/3
106,36	133,5	12,7	TR/1
107	147	16	TR/1
107,9	146	14,2	TR/1
107,95	133,35	11,125	TR/1
107,95	133,35	12,7	TR/3
107,95	138,1	12,7	TR/3
107,95	138,1	9,52	TR/3
110	126	9	TR/1
110	130	13	TR/1
110	130	9	TR/3
110	140	12	TR/2
110	140	15	TR/3
110	142	12	TR/1
110	145	19	TR/3
110	150	16	TR/1
110	160	13	TR/1
112,7	139,7	12,7	TR/3
112,72	139,7	14,27	TR/3
113	140	13	TR/3
114	139	15	TR/1
114	140	13,3	TR/1
114,29	139,69	12,7	TR/1
114,29	139,69	9,52	TR/3
114,3	152,41	15,88	TR/3
115	135	10	TR/3
115	137	9	TR/3
115	140	12	TR/3
115	140	13	TR/1

Ød	ØD	H	PROFILE
115	145	15	TR/1
115	150	10	TR/3
115	150	10	TR/3
115	155	16	TR/3
115	160	15	TR/1
117,4	152,4	15,8	TR/1
117,47	136,52	10,31	TR/1
117,475	152,4	12,7	TR/3
117,48	146,08	14,3	TR/3
117,5	142,5	12,5	TR/3
117,81	215,91	15,88	TR/3
120	136	9	TR/1
120	140	12,5	TR/2
120	144	12	TR/1
120	145	15,5	TR/3
120	145,4	12,7	TR/3
120	150	12	TR/2
120	150	13	TR/3
120	150	13	TR/2
120	150	15	TR/3
120	150	16	TR/1
120	152	16	TR/1
120	152	16	TR/3
120	155	18	TR/1
120	160	12	TR/1
120	160	15	TR/1
120	160	16	TR/1
120	160	18	TR/1
120,65	152,43	14,3	TR/3
123,8	149,2	12,7	TR/3
123,8	158,75	14,3	TR/1
125	140	10	TR/2
125	151	17	TR/1
125	160	15	TR/1
125	160	15	TR/2
125	165	15	TR/1
125	165	16	TR/3
125	165	16	TR/1
125	170	13	TR/3
125,425	158,75	12,7	TR/3
126	160	15	TR/3

Ød	ØD	H	PROFILE
126,2	146	9,5	TR/1
127	146	9,5	TR/2
127	152,4	12,7	TR/1
127	152,4	9,5	TR/3
127	158,9	14,29	TR/1
128,575	161,925	14,275	TR/1
130	150	10	TR/1
130	155	12	TR/2
130	155	12,5	TR/3
130	155	15,5	TR/3
130	160	12	TR/1
130	160	15	TR/3
130	160	15	TR/1
130	165	13	TR/1
130	165	18	TR/1
130	170	10	TR/3
130	170	16	TR/1
130,17	169,85	15,875	TR/1
133,36	171,46	15,88	TR/3
134,94	174,62	15,875	TR/1
135	167	15	TR/1
135	170	12	TR/3
135	170	15	TR/1
135	170	15	TR/3
135	170	16,5	TR/1
135	175	16	TR/1
136,525	161,925	12,7	TR/3
139,7	171,45	15,875	TR/3
139,7	171,45	15,875	TR/1
139,7	174,7	15	TR/1
139,7	177,8	15,875	TR/3
140	155	10	TR/1
140	170	15	TR/3
140	170	15	TR/1
140	178	16	TR/3
140	180	16	TR/2
140	180	16	TR/3
143	165	10	TR/3
145	170	13	TR/1
145	174	14	TR/3
145	175	14	TR/1

Ød	ØD	H	PROFILE
145	180	13	TR/2
145	185	16	TR/3
145	185	18	TR/1
146	177,8	15,9	TR/2
146	177,8	15,9	TR/3
146	178	16	TR/3
149,22	174,62	12,7	TR/1
150	180	12	TR/1
150	180	13	TR/1
150	180	14	TR/1
150	180	14	TR/3
150	180	15	TR/1
150	180	16	TR/1
150	182	16	TR/3
150	186	20	TR/1
150	190	16	TR/1
150	190	16	TR/3
150	200	16	TR/1
150,81	177,8	14,28	TR/3
152	181	12,5	TR/3
152,4	177,8	12,7	TR/1
152,4	181	12	TR/2
152,4	181	12,7	TR/3
152,4	184,15	15,875	TR/2
152,4	190,5	17	TR/2
152,5	183	15	TR/2
155	180	12,5	TR/3
155	190	15	TR/3
155	195	16	TR/3
155	195	18	TR/1
155	215	20	TR/3
158	180	15	TR/3
158,75	184,15	12,7	TR/1
160	185	10	TR/3
160	188	21	TR/3
160	190	15	TR/1
160	190	15	TR/3
160	190	16	TR/3
160	196	20	TR/1
160	200	15	TR/3
160	200	16	TR/3

Ød	ØD	H	PROFILE
160	200	16	TR/1
161,1	210,2	15,8	TR/1
161,925	200,025	15,875	TR/1
162	190	12	TR/3
162	202	16	TR/3
165	190	13	TR/3
165	190	15	TR/3
165	195	15	TR/2
165	200	15	TR/3
165	205	16	TR/1
165,1	203,2	19,05	TR/3
165,1	204,78	15,875	TR/1
165,16	190,5	14,29	TR/1
168,3	206,4	17,5	TR/3
170	200	12	TR/1
170	200	12	TR/3
170	200	15	TR/3
170	200	16	TR/1
170	210	16	TR/1
170	210	16	TR/3
170,26	202	12,7	TR/3
171,45	196,85	19,05	TR/1
171,45	196,85	19,05	TR/3
171,45	209,55	15,8	TR/1
175	205	15	TR/1
175	215	16	TR/1
175,6	208,8	18,8	TR/1
177,8	203,2	12,7	TR/1
177,8	215,9	19,05	TR/1
177,81	209,55	19,05	TR/3
177,81	212,73	15,88	TR/1
178	228	20	TR/1
179	219	16	TR/3
179,38	219,06	15,875	TR/3
180	200	15	TR/3
180	200	16	TR/3
180	205	11	TR/3
180	210	12	TR/3
180	210	15	TR/1
180	210	15	TR/3
180	210	16	TR/3

Ød	ØD	H	PROFILE
180	215	16	TR/2
180	215	16	TR/2
180	215	18	TR/1
180	215	19	TR/1
180	220	15	TR/2
180	220	16	TR/2
180	220	20	TR/1
180,975	209,55	19,05	TR/3
181	219	15	TR/3
185	215	15	TR/1
185	225	16	TR/1
188	215	16	TR/3
190	220	13	TR/1
190	220	15	TR/3
190	220	15	TR/1
190	220	16	TR/1
190	220,4	12,7	TR/3
190	225	18	TR/1
190	225	18	TR/3
190	230	16	TR/3
190	230	16	TR/1
190	230	17	TR/3
190,5	215,9	15,7	TR/3
190,5	215,9	15,7	TR/2
195	220,4	17,7	TR/2
195	233,1	19,1	TR/3
195	235	16	TR/3
195,26	234,94	15,875	TR/3
196,85	238,12	15,875	TR/3
200	225	15	TR/3
200	230	15	TR/1
200	230	16	TR/3
200	231,74	15,875	TR/3
200	235	19	TR/1
200	238	19	TR/3
200	238,12	18	TR/2
200	240	16	TR/1
200	240	16	TR/3
200	250	18	TR/1
200	260	16	TR/3
200,02	234,95	20	TR/1

Ød	ØD	H	PROFILE
200,02	238,12	19,05	TR/1
200,02	238,12	19,05	TR/3
200,02	239,7	15,875	TR/3
200,025	225,425	12,7	TR/1
200,03	228,61	11,11	TR/1
203	241	16	TR/2
203,21	241,31	15,88	TR/2
205	230	15	TR/1
205	245	16	TR/3
205	245	20	TR/1
207,975	233,375	12,7	TR/1
208	233	12,5	TR/1
209,5	234,9	15,8	TR/1
209,5	235	15,8	TR/3
209,55	250,03	15,875	TR/3
210	230	10	TR/1
210	240	12	TR/3
210	240	15	TR/3
210	250	15	TR/1
210	250	16	TR/1
210	250	16	TR/3
210	250	20	TR/3
212,7	247,6	15,8	TR/3
212,72	250,82	15,875	TR/3
215	240	12	TR/3
215	248	15	TR/1
215	250	16	TR/3
215,8	247,6	19	TR/3
215,9	254	15,875	TR/3
215,9	254	19,05	TR/3
216	254	16	TR/3
219	250	12	TR/3
220	250	12	TR/3
220	250	15	TR/1
220	250	15	TR/3
220	255	18	TR/3
220	255	18	TR/1
220	260	15	TR/3
220	260	16	TR/2
220	260	16	TR/3
220	260	18	TR/1

Ød	ØD	H	PROFILE
220	260	20	TR/3
225	250	12,5	TR/1
225	255	15	TR/2
225	265	16	TR/3
225	270	16	TR/1
225,42	269,92	15,875	TR/1
226	258	16	TR/1
228	268	16	TR/2
228	268	20	TR/1
228,6	260,35	15,875	TR/2
228,6	268,28	15,875	TR/1
230	260	12,5	TR/3
230	260	15	TR/3
230	260	16	TR/2
230	265	20	TR/3
230	270	16	TR/1
230	270	20	TR/3
230,18	269,86	15,875	TR/1
231,77	269,87	15,875	TR/1
234,95	273,05	19,05	TR/1
234,95	274,63	15,875	TR/1
235	265	15	TR/3
235	270	16	TR/1
235	273	19	TR/1
235	275	16	TR/1
235	275	20	TR/1
239,71	274,63	17,85	TR/3
240	265	12,5	TR/3
240	270	13,5	TR/3
240	270	15	TR/2
240	270	16	TR/1
240	275	18	TR/1
240	275	18	TR/3
240	280	16	TR/1
240	280	16	TR/3
240	280	20	TR/3
240	280	20	TR/3
241	279	19	TR/3
241,3	279,4	15,875	TR/3
241,3	279,4	15,88	TR/3
241,3	279,4	19,05	TR/3

Ød	ØD	H	PROFILE
241,31	279,41	17,46	TR/3
244,47	276,22	19,05	TR/1
245	275	16	TR/1
245	285	16	TR/3
245	288	16	TR/3
247,6	273	12,7	TR/1
247,65	273,05	15,875	TR/1
247,65	279,4	12,7	TR/1
247,65	279,4	15,875	TR/1
247,65	298,45	19,05	TR/1
249,23	289,71	15,875	TR/3
250	275,4	12,7	TR/3
250	280	12	TR/3
250	280	15	TR/3
250	280	16	TR/2
250	285	18	TR/3
250	285,8	17,5	TR/1
250	288	19,05	TR/3
250	290	16	TR/1
250	290	16	TR/3
250	294	20	TR/1
250	295	24	TR/1
250	300	20	TR/1
250	300	20	TR/2
250,8	290	15,875	TR/3
250,82	290,5	15,875	TR/3
254	279,4	15	TR/3
254	280	14,7	TR/2
254	280	14,7	TR/3
254	285,75	16,76	TR/1
254	292,1	15,875	TR/3
254,1	285,76	15,875	TR/1
255	299	20	TR/2
255,58	300,03	19,84	TR/1
256	300	20	TR/1
258	290	16	TR/3
260	280	11,8	TR/1
260	290	16	TR/3
260	290	20	TR/1
260	298	17	TR/3
260	300	16	TR/1

Ød	ØD	H	PROFILE
260	300	18	TR/1
260	300	20	TR/3
260	300	20	TR/3
260	304	19,05	TR/3
260	304	20	TR/1
260	304	20	TR/3
260	305	16	TR/3
260,35	300,03	17,85	TR/1
260,35	300,03	19,84	TR/3
260,35	311,15	15,875	TR/3
261	311	16	TR/3
264	310	13	TR/3
264	310	17	TR/1
265	303	16	TR/1
265	310	22	TR/1
265	310	22	TR/3
265,11	303,21	15,875	TR/1
266,7	311,15	19,05	TR/3
269,87	309,55	15,875	TR/1
269,87	314,3	19,84	TR/1
270	300	15	TR/1
270	308,55	15,875	TR/1
270	310	16	TR/1
270	310	20	TR/1
270	310	20	TR/3
270	314	20	TR/3
270	314	20	TR/1
273	311	15	TR/1
273	317	19	TR/1
273,05	311,15	15,08	TR/1
274,63	315,11	19,84	TR/2
274,8	320	15	TR/3
274,8	320	16	TR/3
275	310	15	TR/1
275	315	20	TR/2
275	319	20	TR/3
275	320	15	TR/1
279,39	319,87	19,84	TR/3
279,39	330,19	23,81	TR/1
279,4	317,5	15,875	TR/1
279,4	317,5	17,46	TR/1

Ød	ØD	H	PROFILE
279,4	317,5	19,05	TR/3
280	310	15	TR/2
280	310	15	TR/3
280	310	16	TR/1
280	310	16	TR/3
280	310	20	TR/1
280	315	15	TR/2
280	318	15	TR/1
280	318,75	27	TR/1
280	320	16	TR/1
280	320	16	TR/1
280	320	18	TR/3
280	320	20	TR/3
280	324	20	TR/1
280	340	15	TR/3
285	325	16	TR/3
286	336,54	15	TR/1
287	315	12,7	TR/1
290	315,4	12,7	TR/3
290	320	15	TR/3
290	328,1	19,05	TR/1
290	330	20	TR/3
290	334	20	TR/1
290	335	24	TR/1
290	344	20	TR/1
290,51	328,1	19,05	TR/1
292,09	330,19	17,85	TR/3
292,09	330,19	18	TR/3
292,09	330,19	19,05	TR/2
292,09	342,89	23,01	TR/1
292,1	336,5	19	TR/3
295	335	16	TR/3
295	339	20	TR/1
295,27	339,72	19,84	TR/1
296	340	20	TR/1
298,44	336,54	12,5	TR/1
298,44	336,54	17,46	TR/1
298,45	358,77	25,4	TR/1
298,6	260,3	19,05	TR/3
300	330	14	TR/3
300	330	14	TR/3

Ød	ØD	H	PROFILE
300	332	16	TR/3
300	335	18	TR/3
300	340	16	TR/1
300	340	18	TR/3
300	340	20	TR/3
300	340	20	TR/1
300	344	20	TR/3
300	344	20	TR/3
300	344	22	TR/2
300	350,8	19,05	TR/3
300,03	331,77	15,875	TR/3
301,62	341,3	15,875	TR/1
302	342	16	TR/1
304,79	342,89	19,05	TR/1
304,8	355,6	20,64	TR/1
304,8	355,6	25,4	TR/1
305	345	20	TR/1
307,8	407	26	TR/1
310	354	20	TR/2
311,15	362,2	25,4	TR/1
314	355	20	TR/2
314,32	355,52	19,84	TR/1
315	343	14	TR/1
315	359	22	TR/3
315	364	20	TR/1
316	360	20	TR/3
317	361	20	TR/1
317,5	355,6	19,05	TR/3
317,6	355,6	17,45	TR/1
320	346	15	TR/3
320	350	15	TR/1
320	358	20	TR/3
320	360	15	TR/3
320	360	18	TR/3
320	360	20	TR/1
320	364	20	TR/1
320	364	20	TR/3
320,67	358,77	25,4	TR/1
323	363	16	TR/3
323,85	361,95	17,45	TR/3
324	362	17,5	TR/3

Ød	ØD	H	PROFILE
325	375	22,8	TR/1
330	370	20	TR/1
330	370	20	TR/3
330	374	19	TR/1
330	374	20	TR/3
330,19	373,06	19,05	TR/1
330,2	368,3	17,45	TR/3
334,96	365,12	15,875	TR/1
335	365	16	TR/2
335	375	15	TR/3
335	375	18	TR/1
335	395	16	TR/3
336	380	20	TR/3
340	370	18	TR/3
340	372	16	TR/3
340	380	15	TR/1
340	380	20	TR/3
340	380	20	TR/1
340	380	22	TR/1
340	384	20	TR/3
342,9	381	17,4	TR/3
342,9	381	19,05	TR/3
342,9	387,3	19	TR/3
342,9	387,3	19	TR/1
342,9	387,3	20	TR/3
342,9	393,7	20,7	TR/3
348	380	16	TR/2
350	380	15	TR/3
350	390	20	TR/1
350	394	20	TR/1
350	394,44	19,05	TR/1
350,56	395	20,63	TR/3
355	394	20	TR/1
355	395	20	TR/2
355	405	20	TR/1
355,59	393,69	19,84	TR/1
355,6	400,04	19,05	TR/1
355,6	400,04	19,05	TR/3
360	390	18	TR/3
360	398	19	TR/1
360	400	17	TR/3

Ød	ØD	H	PROFILE
360	400	18	TR/3
360	400	20	TR/1
360	400	22	TR/1
360	404	20	TR/1
360	404	20	TR/3
360	410	20	TR/1
360	420	15	TR/3
360,36	398,46	19,05	TR/1
360,36	404	19,84	TR/1
360,36	420,68	15,08	TR/3
361,9	400	16	TR/3
361,94	406,38	19,05	TR/1
362	400	20	TR/3
362	406	19,05	TR/1
362	406	20	TR/3
365	405	20	TR/3
365,1	408,8	19,8	TR/1
365,12	404,8	19,84	TR/3
368,3	419,1	20,60	TR/3
369,88	414,32	19,05	TR/1
369,88	414,32	19,84	TR/1
370	400	10	TR/2
370	410	18	TR/3
370	414	19	TR/1
370	414	20	TR/1
370	414	20	TR/3
370	414	20	TR/2
373,06	398,46	12,7	TR/3
374,64	419,08	19,84	TR/1
375	419	20	TR/1
375	420	16	TR/1
375	420	16	TR/3
376,2	427	22,22	TR/3
380	419	24	TR/3
380	419	25	TR/1
380	420	15	TR/1
380	420	20	TR/3
380	420	20	TR/1
380	424	20	TR/1
380	429	24	TR/3
380	430	19	TR/3

Ød	ØD	H	PROFILE
380	430	19	TR/1
380	435	25	TR/3
380	435	25	TR/1
381	419,1	17,45	TR/3
384	405	15	TR/1
385	435	25	TR/1
387	431	22,5	TR/3
390	420	14	TR/1
390	424,8	13,5	TR/3
390	428,1	19,05	TR/1
390	430	18	TR/3
390	430	20	TR/3
390	434	20	TR/1
390,52	425,44	13,49	TR/3
393,7	444,5	23	TR/3
393,7	444,52	23,57	TR/1
393,71	438,15	19,5	TR/3
393,71	438,15	19,5	TR/3
393,71	438,15	20	TR/3
394	350	20	TR/3
395	439	20	TR/1
395,28	430,2	17,86	TR/1
398,46	430,2	19,05	TR/1
399	431	19	TR/1
400	438,1	18,5	TR/1
400	440	14	TR/2
400	444	19,05	TR/3
400	444	20	TR/3
400	444,5	22	TR/3
400	450	20	TR/1
400	450	20	TR/3
400	450	22	TR/3
400	460	25	TR/3
400,04	444,48	19,84	TR/1
400,04	450,84	22,22	TR/2
404,81	455,61	22,22	TR/3
405	449	20	TR/1
405	455	22	TR/3
406,4	457,2	19	TR/3
406,4	457,2	20,6	TR/3
406,4	457,2	21,2	TR/3

Ød	ØD	H	PROFILE
406,4	457,2	22,2	TR/1
406,4	457,2	28,6	TR/3
406,4	457,2	28,6	TR/1
410	450	20	TR/1
410	460	22	TR/2
410	460	25	TR/1
412,74	450,84	17,46	TR/3
412,74	450,84	22,22	TR/3
413	463	22	TR/3
419	451	19	TR/3
419,09	450,84	19,05	TR/3
419,09	469,89	23,01	TR/3
420	460	15	TR/1
420	460	17	TR/3
420	460	20	TR/3
420	470	20	TR/3
420	470	22	TR/3
420	470	22	TR/1
420	470	23	TR/3
420	470	25	TR/1
420	485,1	19,05	TR/3
420,68	460,36	19,05	TR/1
425	483	23	TR/3
425	483	23	TR/3
425,5	482,6	23,01	TR/3
430	460	15	TR/1
430	480	22	TR/2
430	480	25	TR/1
430	480	25	TR/3
430	480	30	TR/1
431,8	469,89	22,22	TR/2
431,8	482,6	20,6	TR/3
432	470	22	TR/1
435	485	22	TR/3
435	485	23	TR/1
439,73	484,23	19,05	TR/3
440	470	20	TR/1
440	472	20	TR/2
440	484,3	19	TR/3
440	490	20,5	TR/1
440	490	22	TR/3

Ød	ØD	H	PROFILE
444,5	508	19,05	TR/3
445	495	22	TR/3
446	486	16	TR/3
449,25	500,05	23,01	TR/1
450	494	20	TR/1
450	500	22	TR/3
450	500	22	TR/1
450	500	23	TR/1
450,85	479,29	13,05	TR/1
457,2	508	22,22	TR/3
458	494	18	TR/3
460	500	16	TR/2
460	500	20	TR/3
460	510	22	TR/1
460,37	510,37	21,82	TR/1
466,72	509,58	19,84	TR/1
467	510	20	TR/3
467	510	20	TR/1
467	510	25	TR/3
470	508	19	TR/2
470	520	22	TR/2
474	514	20	TR/1
474,65	524,65	21,82	TR/1
475	525	22	TR/1
475	525,8	25,4	TR/3
475	530	18	TR/1
475,8	520	22	TR/1
479,42	519,9	19,84	TR/3
479,42	529,42	21,82	TR/1
480	520	20	TR/3
480	530	22	TR/3
480	530	22	TR/1
480	530	25	TR/3
480	530	25	TR/1
481	520,68	19,84	TR/3
482,58	520,68	19,05	TR/2
485	535	22	TR/1
485	535	22	TR/3
488,94	539,74	21,82	TR/1
490	540	22	TR/3
490	540	22	TR/1

Ød	ØD	H	PROFILE
495,3	546,3	22	TR/3
500	540	16	TR/1
500	540	20	TR/3
500	540	20	TR/1
500	544	20	TR/3
500	544	22	TR/3
500	550	22	TR/2
500	550,8	25,4	TR/1
500	558,8	22	TR/1
500	560	25	TR/2
500,05	544,49	22,22	TR/3
502	542	20	TR/1
503	552	20	TR/1
503	553	22	TR/1
503,23	552,43	19,84	TR/1
505	535	15	TR/1
508	546,1	19,05	TR/1
508	558,8	20,63	TR/3
510	554	20	TR/1
510	560	22	TR/3
515	565	22	TR/1
520	570	22	TR/3
520,7	558,8	19,05	TR/3
520,7	571,5	22,22	TR/1
525	575	22	TR/3
528	578	22	TR/3
530	555	12,5	TR/1
530	580	20	TR/3
530	580	22	TR/3
530	580	25	TR/1
530	580,8	25,4	TR/1
530,22	555,52	12,7	TR/1
533,39	584,19	22,22	TR/1
534	584	22	TR/1
535	585	22	TR/3
539,74	590,54	22,22	TR/1
540	590	22	TR/1
540	590	22	TR/3
540	590	25	TR/1
540	590	25	TR/3
541,33	577,83	17,85	TR/3

Ød	ØD	H	PROFILE
542	578	18	TR/3
544,5	593,7	21,82	TR/1
545	595	22	TR/1
549	600,8	20,6	TR/1
549,27	600,07	20,63	TR/1
549,27	600,07	21,82	TR/3
550	600	22	TR/3
550	600	25	TR/2
552,45	596,9	19,05	TR/1
558,8	596,9	19,05	TR/3
559	597	19	TR/3
560	610	20	TR/1
560	610	22	TR/1
560	610	26	TR/2
560,38	609,58	21,82	TR/1
570	620	22	TR/3
571,5	615,95	22,22	TR/3
571,5	615,95	25	TR/3
571,52	622,32	20,64	TR/3
574,68	619,12	19,84	TR/1
575	619	20	TR/1
577,85	617,9	14,6	TR/1
579,43	615,93	15,875	TR/3
579,43	628,63	21,82	TR/1
580	616	16	TR/3
580	620	25	TR/3
580	630	22	TR/1
585	635	22	TR/1
590	640	20	TR/3
590	640	22	TR/3
590,55	641,35	20,62	TR/1
590,55	643,7	25,4	TR/1
596,89	641,35	19,05	TR/1
596,9	647,7	22,22	TR/1
600	640	20	TR/1
600	650	22	TR/2
600	650	25	TR/2
600,06	649,26	21,82	TR/1
605	645	18	TR/3
609,6	658,8	21,82	TR/1
609,6	673,1	25,4	TR/1

Ød	ØD	H	PROFILE
610	660	22	TR/1
610	674	22	TR/3
610	674	25	TR/3
615	665	24,5	TR/1
620	684	25	TR/3
630	660	15	TR/2
630	694	25	TR/3
634,9	685,7	22,22	TR/1
635	685	22	TR/1
635	699	25	TR/1
640	684	20	TR/3
640	688	20	TR/3
640	704	25	TR/3
645	695	22	TR/2
647,72	698,53	22,23	TR/2
650	690	18	TR/3
650	690	20	TR/3
660	724	25	TR/3
660	724	25	TR/1
660,3	723,8	25,4	TR/1
660,4	711,2	25,4	TR/1
665	729	25	TR/1
665,15	728,65	25	TR/1
670	734	25	TR/3
679,44	742,94	25	TR/3
680	730	22	TR/3
680	744	25	TR/3
685	735	22	TR/1
685	749	25	TR/3
685,8	736,6	22,22	TR/2
690	740	25	TR/3
700	750	25	TR/3
700	764	25	TR/3
710	770	25	TR/3
710	774	25	TR/2
711	775	25	TR/2
711,19	774,69	25	TR/2
715,95	779,45	25	TR/1
716	780	25	TR/1
720	780	25	TR/3
720	784	25	TR/3

Ød	ØD	H	PROFILE
730	780	20	TR/3
730	794	25	TR/3
736	800	25	TR/3
740	782	18	TR/3
740	804	25	TR/3
748	812	25	TR/3
749,29	809,61	25	TR/1
750	780	18	TR/1
750	810	25	TR/1
750	814	25	TR/3
750	850	25	TR/1
760	800	20	TR/1
773,7	825,5	23,01	TR/3
774,7	820	22,22	TR/3
775	839	25	TR/1
780	830	25	TR/1
780	844	25	TR/1
786	836	25	TR/1
800	864	25	TR/3
800	870	30	TR/3
800	870	30	TR/3
800	874	25	TR/3
800,09	863,59	23,01	TR/1
809,61	873,11	25	TR/3
810	860	25	TR/1
810	860	25	TR/3
810	870	25	TR/3
810	874	25	TR/3
810	910	25	TR/1
820	870	25	TR/1
820	884	28	TR/1
825	875	22	TR/1
825,5	876,3	22,22	TR/1
838	880	20	TR/1
838,15	880,8	20	TR/1
838,18	879,46	19,84	TR/1
840	904	25	TR/3
849,3	900,1	19,84	TR/3
850	900	19	TR/3
850	900	20	TR/3
850	914	25	TR/3

Ød	ØD	H	PROFILE
850,9	900,1	19,84	*TR/3*
860	920	25	*TR/3*
863,58	927,08	25	*TR/1*
864	928	25	*TR/1*
890	954	25	*TR/1*
890,57	954,07	25	*TR/1*
899,5	960,5	30	*TR/1*
900	960	30	*TR/3*
900	960	30	*TR/1*
900	980	23	*TR/3*
920	970	20	*TR/1*
930	990	25	*TR/1*
930	994	25	*TR/2*
933,45	984,29	22,22	*TR/2*
934	984	22	*TR/2*
940	995	25	*TR/1*
950	1014	25	*TR/3*
952,45	1003,3	22,22	*TR/2*
953	1003	22	*TR/2*
954	1004	22	*TR/2*
965	1015	22	*TR/2*
965,2	1016	22,22	*TR/3*
970	1030	21,5	*TR/3*
970	1034	25	*TR/3*

Ød	ØD	H	PROFILE
990	1040	22	*TR/3*
990	1040	25	*TR/3*
990	1040	25	*TR/3*
990	1054	25	*TR/3*
995	1025	15	*TR/1*
1000	1064	25	*TR/3*
1020	1084	25	*TR/3*
1049,3	1112,8	25	*TR/1*
1050	1114	25	*TR/1*
1060	1110	20	*TR/1*
1060,4	1109,6	19,84	*TR/1*
1073	1104	15	*TR/1*
1105	1160	25	*TR/3*
1110	1160	22	*TR/3*
1219,2	1270	21	*TR/1*
1249,3	1298,5	19,84	*TR/1*
1250	1300	20	*TR/1*
1250	1314	25	*TR/1*
1320	1370	20	*TR/3*
1447,8	1524	19,05	*TR/3*
1550	1614	25	*TR/3*
1620	1684	25	*TR/3*
2350	2414	25	*TR/3*