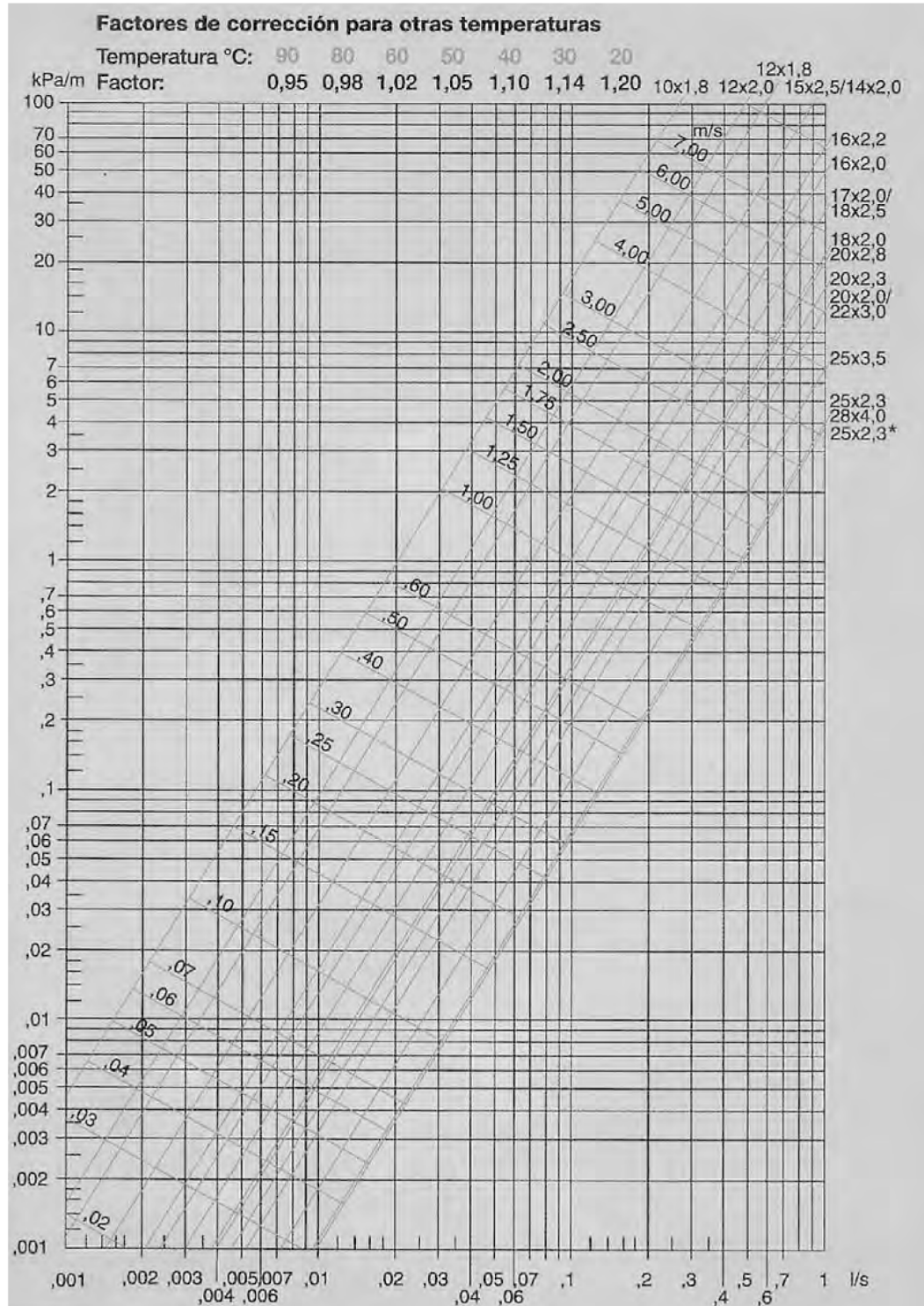


Diagramas y tablas de tuberías AC-FIX PEX-a

Diagrama de caída de presión en tubería AC-FIX PEX-a

Nomograma de pérdidas de carga

Temperatura del agua: 70°C



*Rugosidad efectiva: 0,0005 mm

Nomograma de pérdidas de carga
 Temperatura del agua: 70°C

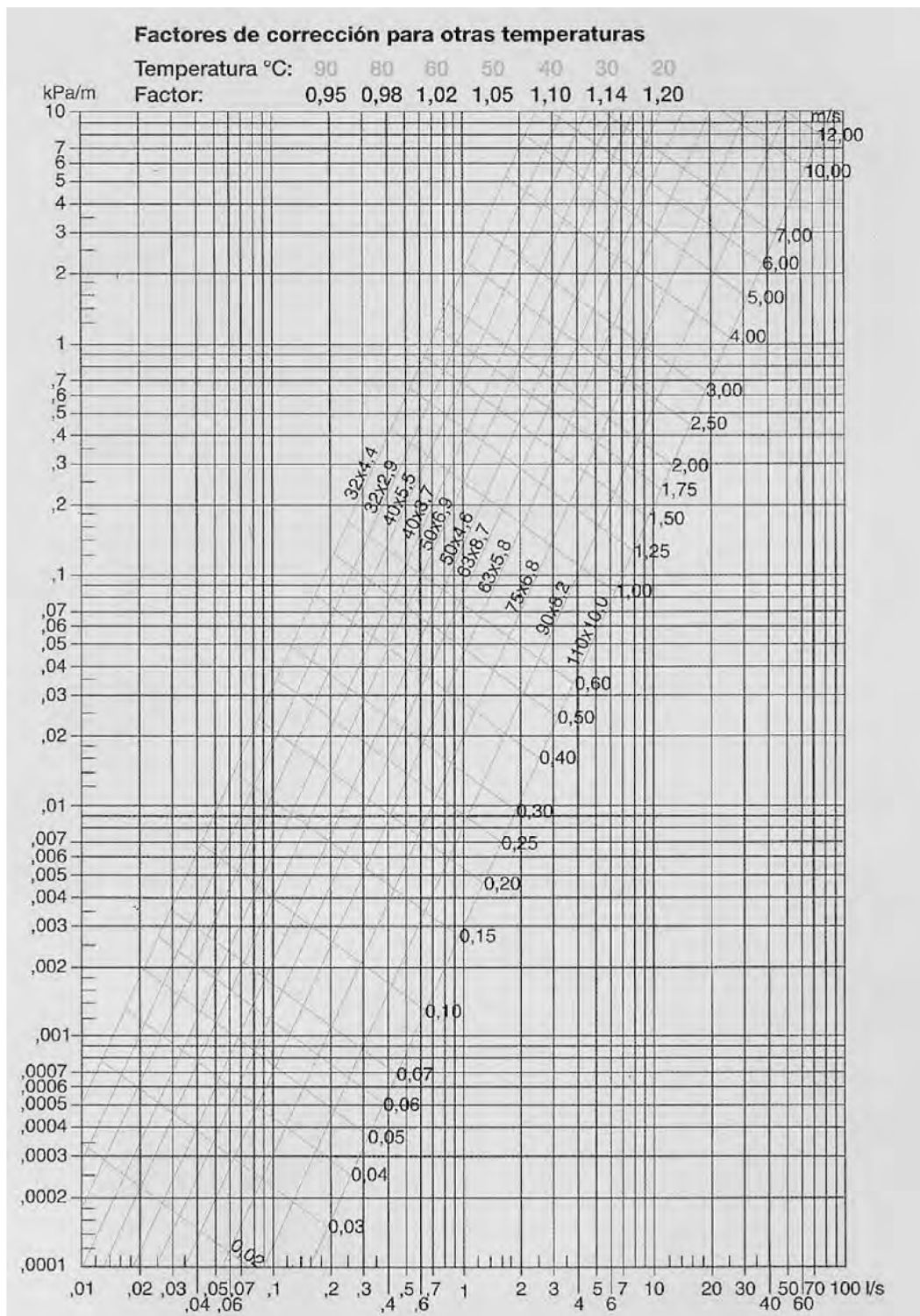


Tabla de pérdida de carga en tuberías AC-FIX PEX-a

D _e (mm) Esp (mm) D _i (mm)	16 1,8 12,4		20 1,9 16,2		25 2,3 20,4	
	Q (l/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)
0,01	0,125	0,083	0,032	0,049	0,011	0,031
0,02	0,434	0,166	0,113	0,097	0,038	0,061
0,03	0,900	0,248	0,236	0,146	0,078	0,092
0,04	1,511	0,331	0,396	0,194	0,130	0,122
0,05	2,258	0,414	0,593	0,243	0,194	0,153
0,06	3,136	0,497	0,824	0,291	0,266	0,184
0,07	4,138	0,580	1,086	0,340	0,352	0,214
0,08	5,263	0,662	1,384	0,388	0,447	0,245
0,09	6,506	0,745	1,712	0,437	0,515	0,275
0,10	7,865	0,828	2,070	0,485	0,664	0,306
0,15	16,319	1,242	4,303	0,728	1,366	0,459
0,20	27,392	1,656	7,230	0,970	2,278	0,612
0,25	40,934	2,070	10,815	1,213	3,387	0,765
0,30	56,837	2,484	15,027	1,455	4,684	0,918
0,35	75,016	2,898	19,845	1,698	6,162	1,071
0,40	95,401	3,312	25,252	1,941	7,813	1,224
0,45	117,934	3,726	31,231	2,183	9,633	1,377
0,50	142,565	4,140	37,769	2,426	11,618	1,530
0,55	169,251	4,554	44,856	2,678	13,764	1,683
0,60	197,952	4,968	52,480	2,911	16,067	1,836
0,65	228,633	5,382	6,634	3,154	18,525	1,989
0,70	261,264	5,796	69,308	3,396	21,134	2,142
0,75	295,815	6,244	78,495	3,639	23,893	2,295
0,80	332,261	6,625	88,189	3,881	26,798	2,448
0,85	370,577	7,039	98,362	4,124	29,848	2,601
0,90	410,740	7,453	109,069	4,366	33,042	2,754
0,95	452,729	7,867	120,245	4,609	36,376	2,907
1,00			131,904	4,852	39,850	3,059
1,05			144,042	5,094	43,462	3,212
1,10			156,653	5,337	47,210	3,365
1,15			169,735	5,579	51,093	3,518
1,20			183,281	5,822	55,110	3,671
1,25			197,290	6,064	59,259	3,824
1,30			211,757	6,307	63,539	3,977
1,40			242,050	6,792	72,849	4,283
1,50			274,135	7,277	81,950	4,589
1,60			307,989	7,762	91,916	4,895
1,70			343,588	8,248	102,379	5,201
1,80			380,912	8,733	113,332	5,507
1,90			419,942	9,218	124,768	5,813
2,00			460,661	9,703	136,684	6,119
2,10					149,072	6,425
2,20					161,927	6,731
2,30					175,246	7,037
2,40					189,023	7,343
2,50					203,255	7,649
2,60					217,936	7,955
2,64					223,934	8,077
2,70					233,064	8,261
2,80					248,634	8,567
2,90					264,642	8,873
3,00					281,087	9,178
3,10					297,963	9,484
3,20					315,269	9,790

D_e: Diámetro exterior (mm)
 Esp: Espesor (mm)
 D_i: Diámetro interior (mm)
 Q: Caudal (l/s)
 Vel: Velocidad del agua (m/s)
 R: Pérdida de carga (mbar/m)

D _o (mm) Esp (mm) D _i (mm)	32 2,9 26,2		40 3,7 32,6		50 4,6 40,8	
	Q (l/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)
0,01	0,003	0,019				
0,02	0,010	0,037				
0,03	0,021	0,056				
0,04	0,036	0,074				
0,05	0,053	0,093				
0,06	0,074	0,111				
0,07	0,097	0,130				
0,08	0,123	0,148				
0,09	0,152	0,167				
0,10	0,184	0,185	0,061	0,120	0,021	0,076
0,15	0,381	0,278	0,126	0,180	0,044	0,115
0,20	0,639	0,371	0,212	0,240	0,074	0,153
0,25	0,954	0,464	0,317	0,300	0,110	0,191
0,30	1,324	0,556	0,440	0,359	0,153	0,229
0,35	1,747	0,649	0,580	0,419	0,201	0,268
0,40	2,220	0,742	0,737	0,479	0,256	0,306
0,45	2,743	0,835	0,911	0,539	0,316	0,344
0,50	3,314	0,927	1,102	0,599	0,382	0,382
0,55	3,933	1,020	1,308	0,659	0,453	0,421
0,60	4,598	1,113	1,529	0,719	0,530	0,459
0,65	5,309	1,206	1,766	0,779	0,611	0,497
0,70	6,065	1,298	2,017	0,839	0,698	0,535
0,75	6,865	1,391	2,284	0,899	0,790	0,574
0,80	7,709	1,484	2,565	0,958	0,888	0,612
0,85	8,596	1,577	2,860	1,018	0,990	0,650
0,90	9,525	1,669	3,170	1,078	1,097	0,688
0,95	10,497	1,762	3,494	1,138	1,208	0,727
1,00	11,510	1,855	3,831	1,198	1,325	0,765
1,05	12,564	1,948	4,183	1,258	1,446	0,803
1,10	13,659	2,040	4,548	1,318	1,572	0,841
1,15	14,794	2,133	4,926	1,378	1,703	0,880
1,20	15,969	2,226	5,318	1,438	1,838	0,918
1,25	17,184	2,319	5,723	1,498	1,978	0,958
1,30	18,438	2,411	6,141	1,557	2,122	0,994
1,40	21,063	2,597	7,017	1,677	2,424	1,071
1,50	23,842	2,782	7,944	1,797	2,743	1,147
1,60	26,772	2,968	8,921	1,917	3,080	1,224
1,70	29,852	3,153	9,949	2,037	3,434	1,300
1,80	33,079	3,339	11,026	2,156	3,806	1,377
1,90	36,453	3,524	12,151	2,276	4,193	1,453
2,00	39,970	2,710	13,326	2,396	4,598	1,530
2,10	43,631	3,895	14,548	2,516	5,019	1,606
2,20	47,433	4,081	15,817	2,636	5,456	1,683
2,30	51,375	4,266	17,133	2,756	5,909	1,759
2,40	55,457	4,452	18,496	2,875	6,378	1,836
2,50	59,675	4,637	19,905	2,995	6,863	1,912
2,60	64,031	4,823	21,359	3,115	7,364	1,989
2,64	65,811	4,897	21,954	3,163	7,568	2,019
2,70	68,522	5,082	22,859	3,235	7,880	2,065
2,80	73,147	5,194	24,404	3,355	8,412	2,142
2,90	77,905	5,379	25,994	3,474	8,959	2,218
3,00	82,796	5,565	27,628	3,594	9,521	2,295
3,10	87,819	5,750	29,306	3,714	10,096	2,371
3,20	92,972	5,936	31,025	3,834	10,690	2,448
3,30	98,255	6,121	32,793	3,954	11,297	2,524
3,40	103,667	6,306	34,602	4,073	11,919	2,601
3,50	109,207	6,492	36,454	4,193	12,556	2,677
3,60	114,875	6,677	38,348	4,313	13,207	2,754
3,70	120,670	6,863	40,285	4,433	13,873	2,930
3,80	126,590	7,048	42,264	4,553	14,553	2,907
3,90	132,636	7,234	44,285	4,672	15,248	2,983
4,00	138,807	7,419	46,347	4,792	15,957	3,059
4,10	145,101	7,605	48,452	4,912	16,680	3,136
4,20	151,519	7,790	50,598	5,032	17,418	3,212
4,30	158,060	7,976	52,785	5,152	18,169	2,289
4,40	164,723	8,161	55,012	5,271	18,935	3,365
4,50			57,281	5,391	19,714	3,442
4,60			59,591	5,511	20,508	3,518
4,70			61,940	5,631	21,315	3,595
4,80			64,330	5,751	22,136	3,671
4,90			66,760	5,870	22,971	3,748
5,00			69,230	5,990	23,819	3,824
5,10			71,740	6,110	24,681	3,901
5,20			74,290	6,230	25,557	3,977
5,30			76,878	6,350	26,446	4,054
5,40					27,348	4,130
5,50					28,264	4,207
5,60					29,193	4,283
5,70					30,135	4,360
5,80					31,091	4,436
5,90					32,060	4,513

D _e (mm) Esp (mm) D _i (mm)	63 5,8 51,4		75 6,8 61,4		90 8,2 73,6		110 10 90	
	Q (l/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)
1,00	0,443	0,482	0,191	0,338	0,081	0,235	0,030	0,157
1,05	0,484	0,506	0,209	0,355	0,088	0,247	0,033	0,165
1,10	0,526	0,530	0,227	0,372	0,096	0,259	0,036	0,173
1,15	0,570	0,554	0,246	0,388	0,104	0,270	0,039	0,181
1,20	0,616	0,578	0,265	0,405	0,113	0,282	0,042	0,189
1,25	0,663	0,602	0,258	0,422	0,121	0,294	0,045	0,196
1,30	0,712	0,627	0,306	0,439	0,130	0,306	0,049	0,204
1,40	0,814	0,675	0,350	0,473	0,149	0,329	0,056	0,220
1,50	0,922	0,723	0,396	0,507	0,169	0,353	0,063	0,236
1,60	1,036	0,771	0,445	0,540	0,190	0,376	0,071	0,252
1,70	1,156	0,819	0,496	0,574	0,212	0,400	0,079	0,267
1,80	1,281	0,867	0,549	0,608	0,235	0,423	0,088	0,283
1,90	1,413	0,916	0,605	0,642	0,259	0,447	0,097	0,299
2,00	1,550	0,964	0,664	0,675	0,285	0,470	0,106	0,314
2,10	1,693	1,012	0,725	0,709	0,311	0,494	0,116	0,330
2,20	1,842	1,060	0,788	0,743	0,338	0,517	0,126	0,346
2,30	1,996	1,108	0,853	0,777	0,367	0,541	0,137	0,362
2,40	2,155	1,157	0,921	0,811	0,396	0,564	0,148	0,377
2,50	2,320	1,205	0,991	0,844	0,427	0,588	0,159	0,393
2,60	2,491	1,253	1,063	0,878	0,458	0,611	0,171	0,409
2,64	2,561	1,272	1,093	0,892	0,471	0,621	0,175	0,415
2,70	2,667	1,301	1,138	0,912	0,491	0,635	0,183	0,424
2,80	2,848	1,349	1,215	0,946	0,524	0,658	0,195	0,440
2,90	3,034	1,398	1,294	0,979	0,558	0,682	0,208	0,456
3,00	3,226	1,446	1,375	1,013	0,594	0,705	0,221	0,472
3,10	3,423	1,494	1,459	1,047	0,630	0,729	0,235	0,487
3,20	3,625	1,542	1,544	1,081	0,668	0,752	0,249	0,503
3,30	3,833	1,590	1,632	1,115	0,706	0,776	0,263	0,519
3,40	4,045	1,639	1,722	1,148	0,745	0,799	0,277	0,534
3,50	4,263	1,687	1,814	1,182	0,786	0,823	0,292	0,550
3,60	4,486	1,735	1,908	1,216	0,827	0,846	0,308	0,566
3,70	4,713	1,783	2,004	1,250	0,869	0,870	0,323	0,582
3,80	4,946	1,831	2,103	1,283	0,912	0,893	0,339	0,597
3,90	5,184	1,880	2,203	1,317	0,956	0,917	0,356	0,613
4,00	5,427	1,928	2,306	1,351	1,001	0,940	0,372	0,629
4,10	5,674	1,976	2,410	1,385	1,047	0,964	0,389	0,644
4,20	5,927	2,024	2,517	1,418	1,094	0,987	0,407	0,660
4,30	6,184	2,072	2,625	1,453	1,141	1,011	0,425	0,676
4,40	6,447	2,120	2,736	1,486	1,190	1,034	0,443	0,692
4,50	6,714	2,169	2,849	1,520	1,239	1,058	0,461	0,707
4,60	6,986	2,217	2,964	1,554	1,290	1,081	0,480	0,723
4,70	7,263	2,265	3,080	1,587	1,341	1,105	0,499	0,739
4,80	7,545	2,313	3,199	1,621	1,393	1,128	0,518	0,755
4,90	7,831	2,361	3,320	1,655	1,446	1,152	0,538	0,770
5,00	8,123	2,410	3,442	1,689	1,500	1,175	0,558	0,786
5,10	8,419	2,458	3,567	1,722	1,555	1,199	0,578	0,802
5,20	8,719	2,506	3,694	1,756	1,611	1,222	0,599	0,817
5,30	9,025	2,554	3,822	1,790	1,668	1,246	0,620	0,833
5,40	9,335	2,602	3,953	1,824	1,725	1,269	0,641	0,849
5,50	9,650	2,651	4,085	1,858	1,784	1,293	0,663	0,865
5,60	9,969	2,699	4,220	1,891	1,843	1,316	0,685	0,880
5,70	10,293	2,747	4,356	1,925	1,903	1,340	0,707	0,896
5,80	10,622	2,795	4,494	1,959	1,964	1,363	0,730	0,912
5,90	10,956	2,843	4,634	1,993	2,026	1,387	0,753	0,927
6,00	11,293	2,892	4,776	2,026	2,089	1,410	0,776	0,943
6,10	11,636	2,940	4,920	2,060	2,152	1,434	0,800	0,959
6,20	11,983	2,988	5,066	2,094	2,217	1,457	0,823	0,975
6,30	12,335	3,036	5,214	2,128	2,282	1,481	0,846	0,990
6,40	12,691	3,084	5,364	2,161	2,348	1,504	0,872	1,006
6,50	13,052	3,133	5,515	2,195	2,415	1,528	0,897	1,022
6,60	13,417	3,181	5,668	2,229	2,483	1,551	0,922	1,037
6,70	13,787	3,229	5,824	2,263	2,552	1,575	0,948	1,053
6,80	14,161	3,277	5,981	2,297	2,621	1,598	0,973	1,069
6,90	14,539	3,325	6,140	2,330	2,691	1,622	0,999	1,085
7,00	14,922	3,374	6,300	2,364	2,763	1,645	1,026	1,100
7,10	15,310	3,422	6,463	2,398	2,835	1,669	1,053	1,116
7,20	15,702	3,470	6,627	2,432	2,908	1,692	1,080	1,132
7,30			6,794	2,465	2,981	1,716	1,107	1,147
7,40			6,962	2,499	3,056	1,739	1,134	1,163
7,50			7,132	2,533	3,131	1,763	1,162	1,179
7,60			7,303	2,567	3,207	1,786	1,191	1,195
7,70			7,477	2,601	3,284	1,810	1,219	1,210
7,80			7,652	2,634	3,362	1,833	1,248	1,226
7,90			7,829	2,668	3,441	1,857	1,277	1,242

D _e (mm) Esp (mm) D _i (mm)	75		90		110	
	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)	R (mbar/m)	Vel (m/s)
8	8,008	2,702	3,520	1,880	1,306	1,258
8,10	8,189	2,736	3,600	1,904	1,336	1,273
8,20	8,371	2,769	3,681	1,927	1,366	1,289
8,30	8,566	2,803	3,763	1,951	1,397	1,305
8,40			3,846	1,974	1,427	1,320
8,50			3,929	1,998	1,458	1,336
8,60			4,014	2,021	1,489	1,352
8,70			4,099	2,045	1,521	1,368
8,80			4,184	2,068	1,553	1,383
8,90			4,271	2,092	1,585	1,399
9,00			4,359	2,115	1,617	1,415
10			5,277	2,350	1,957	1,572
11			6,273	2,586	2,326	1,729
12			7,346	2,821	2,722	1,886
13			8,494	3,056	3,147	2,043
14					3,599	2,201
15					4,078	2,358
16					4,583	2,515
17					5,115	2,672
18					5,673	2,829
19					6,256	2,987
20					6,665	3,144