



■ AUTOMATIC PRESSURE SYSTEMS

APPLICATIONS

The automatic pressure systems series "TEAM" have been designed for keeping a constant water pressure on small or medium domestic, industrial or irrigation plants. These pressure systems are supplied already assembled and ready for installation. It is possible to choose the most suitable solution for the plant's necessities through the selection of the electrical pump based on the capacity and the working curve. It is also possible to choose the pressure system for its own characteristics. It is important to remind that the size of the pressure system is determined by the quantity of water and pressure required.

CHOOSING A PRESSURE SYSTEM PER WATER NEEDS

Residential buildings

The main data needed for calculation of the water needs are given as following:

- the typology of distribution (tab. 1)
- consumption per numbers of outlet (tab.2)
- the simultaneity factor:

The maximum theoretical requirement is given by the sum of the quantities of water delivered to the various typologies of distribution and flats multiplied by the number of them. In practice, it is generally found that only some of the outlets are used simultaneously.

The simultaneity factor allows to define the real maximum delivery that may be required by the typology of distribution.

Non-residential buildings

For calculation of quantities of water required the following types of buildings are considered:

- offices
- shopping centres
- hospitals
- hotels

Choosing a pressure system per delivery head / pressure

The outlet pressure required for proper operation of electrical appliances & sprinklers must not be lower than 1,5 bar and usually not greater than 4-5 bar.

The values to consider for pressure level calculation are the following:

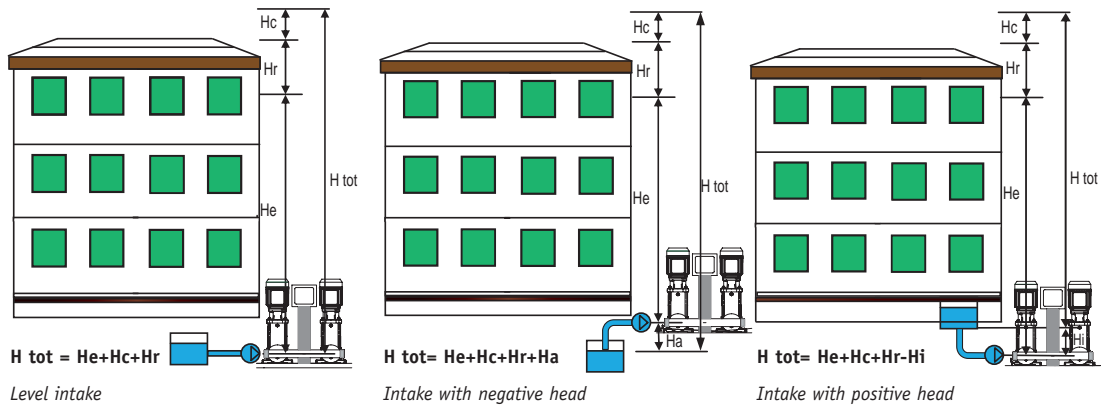
- the geodetic head between the pressure boosting unit and the highest outlet
- the suction lift
- the initial pressure (or positive suction head)
- the minimum residual pressure at the highest outlet (normally 1.5 bar)
- the system head loss
- the difference in pressure between starting and stopping pump

tab. 1

Used per typology of distribution	Capacity
Bidet	6
Washbasin	6
WC with flushing tank duties	6
Sink/Washbasin	9
Dishwasher	10
Shower	12
Washing machine	12
Bath (tub)	15
WC with quick step duties	90

tab. 2

No Flats Apartments	Capacity at the max. simultaneity					
	WC with flushing tank duties			WC with quick step duties		
	1 WC	2 WC	3 WC	1 WC	2 WC	3 WC
1	32	40	50	61	79	84
2	45	56	70	86	112	118
3	55	69	86	105	137	145
4	63	79	100	121	158	167
5	71	88	111	136	177	187
6	78	97	122	149	194	205
8	90	112	141	172	224	236
10	100	125	158	192	250	264
15	123	153	193	235	307	324
20	142	177	223	271	354	374
25	158	198	249	303	396	418
30	173	217	273	332	434	458
35	187	234	295	359	469	494
40	200	250	315	384	501	529
45	212	265	334	407	531	561
50	224	280	352	429	560	591
60	245	307	386	470	614	647
70	265	331	417	507	663	699
80	283	354	446	542	708	748
90	300	375	473	575	751	793
100	317	396	498	606	792	836
120	347	433	546	664	868	916
140	375	468	590	718	937	989
160	401	501	631	767	1.002	1.057
180	425	531	669	814	1.063	1.121
200	448	560	705	858	1.120	1.182
220	470	587	739	899	1.175	1.240
240	491	613	772	939	1.227	1.295
260	511	636	804	978	1.277	1.346
280	530	662	834	1.015	1.325	1.399
300	549	685	863	1.050	1.372	1.448
350	593	740	933	1.135	1.462	1.564
400	633	791	997	1.213	1.584	1.672



N° persons or beds	Capacity at the max. simultaneity				
	Offices	Large complexes	Hospitals	Hotel	Hotels in holiday resorts
15	7	41	45	99	118
20	9	43	55	116	140
25	12	55	65	134	161
30	15	61	74	151	182
35	18	68	84	169	202
40	20	74	93	186	223
45	23	81	103	203	243
50	26	87	113	220	263
60	31	100	131	253	303
70	36	112	150	285	342
80	41	125	169	317	381
90	46	137	188	349	418
100	51	148	206	379	455
120	61	172	243	439	527
140	70	194	279	497	596
160	79	216	314	553	663
180	87	237	349	606	727
200	96	257	384	658	789
250	116	305	468	779	935
300	134	349	549	889	1.067
350	151	390	627	990	1.188
400	166	428	702	1.082	1.298
450	181	463	774	1.166	1.399
500	194	495	843	1.243	1.492
600	220	552	974	1.381	1.657
700	243	601	1.095	1.501	1.801
800	265	645	1.206	1.608	1.930
1000	310	721	1.402	1.803	2.163
1200	358	788	1.569	1.992	2.390
1400	413	853	1.714	2.189	2.626
1600	476	920	1.843	2.395	2.874
1800	546	988	1.965	2.600	3.120
2000	621	1.054	2.089	2.778	3.333