Data Booklet

EN12845

CE

“BREN” TYPE FIREFIGHTING BOOSTER SET

DAkkS Deutsche Akkreditierungsstelle D-ZM-17581-01-00

TÜV SAAR CERT ISO 9001

Safe in fire

Brentas PC

Overview:

Safety is first:

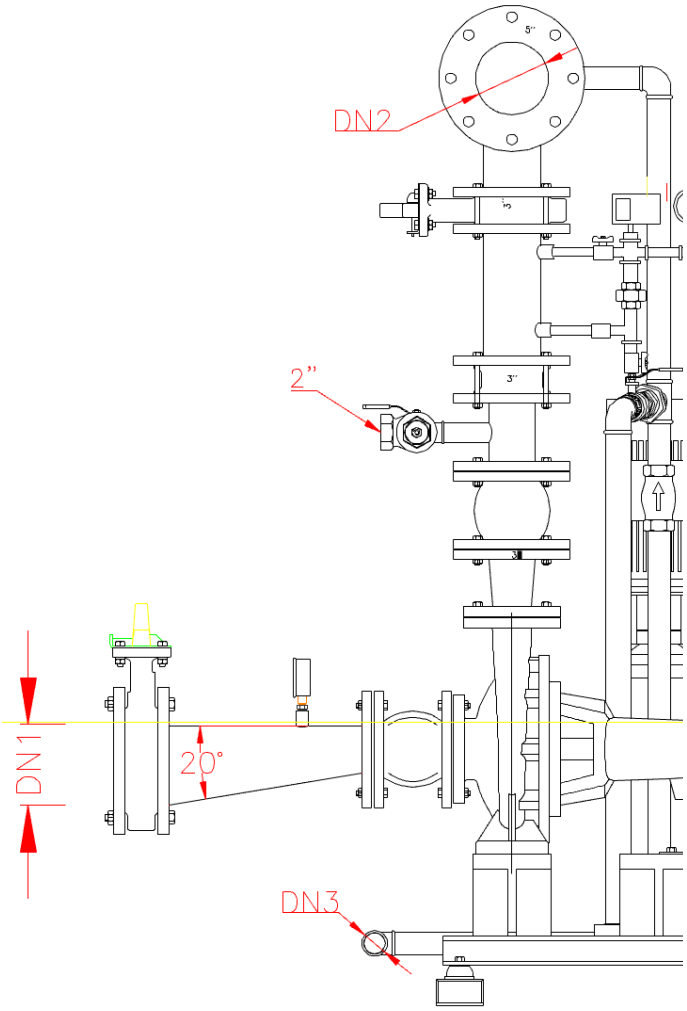
The BREN type Fire Fighting booster sets are compact, robust and complete units with components, functionality and controls complying with the EN12845 standard. “BREN” firefighting units declaring our company’s deep knowledge on firefighting and wide experience around pressure boosting and water management which enabled our engineering team to create a durable system, fully compatible with the standard, able to withstand the test of the circumstances created by the fire. Construction companies , engineers and individuals have chosen these units for their safety in case of fire.
Our experience on pumps holds back to 1956 and since 1994 we started our firefighting assembly line in which we exceled to the largest firefighting manufacturer in Greece, Cyprus & The Balkans.
Now we have developed a great adaptability to the standard, while offering high levels of easy transportation, installation and maintenance.

Advantages:

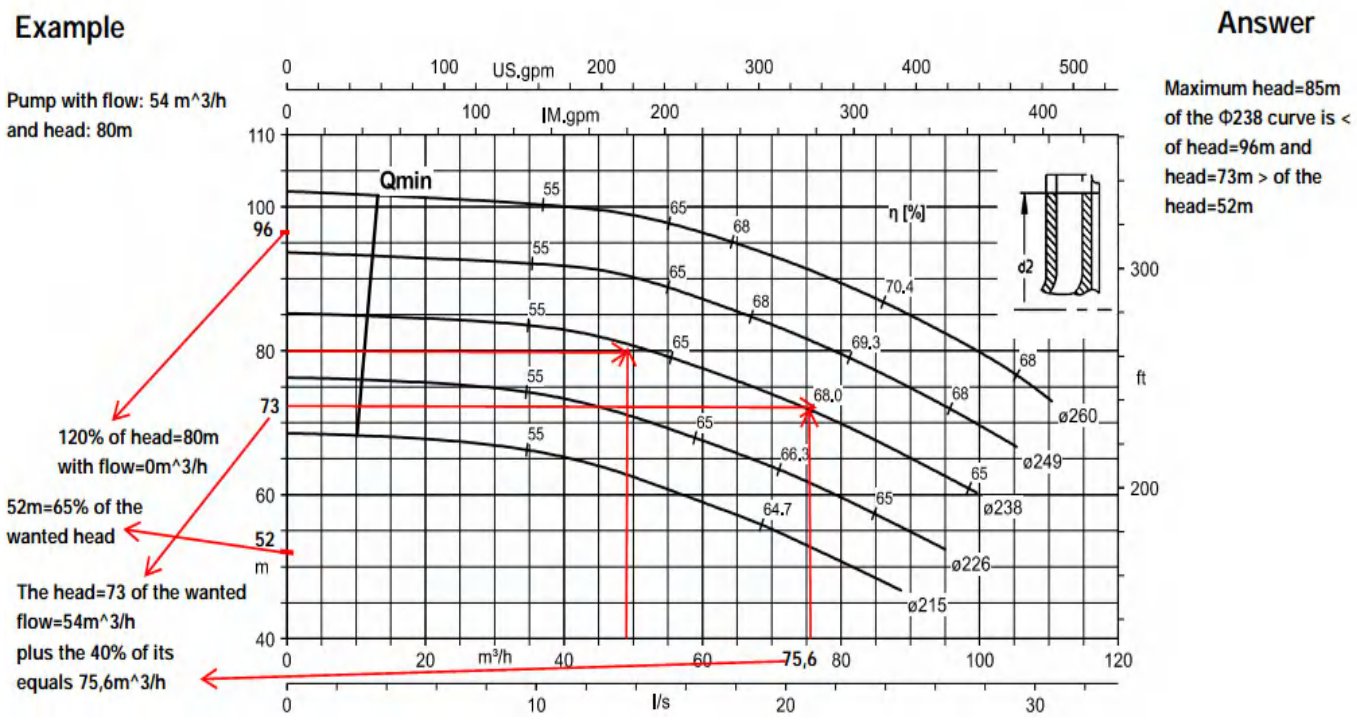
√ Robust, heavy duty construction.
√ Compact design.
√ Engineered to maximum safety, space saving and adaptability to the EN12845 standard.
√ RAL 30-20 industrial paint. (variations apply)
√

General features:

- EN733 back-pull-out-pumps with stable H (Q) curve.
- Eccentric cone on the suction side of the duty pumps.
- Two control pressure-switches for each pump, connected to the pressure side by means of a 15 mm diameter fitting (10.7.5.1).
- Provided with a 2’’ (50) mm fitting to connect an auto-priming tank (10.6.2).
- Bypass flow connections to avoid overheating of the pump in the event of operation at shut off and/or flow for cooling the diesel engine properly regulated.
- Equipped with a connection for feeding the sprinkler circuit protecting the installation room (10.3.2).
- Factory set pressure-switches (10.7.5.2).
- Availability of remote alarm signaling unit (10.8.6.2) with siren and suitably colored signaling lamps (10.8.6.3).
- Muffler with silencer (10.9.5) always supplied with the diesel engine.
- Jockey pump build-in so as to avoid accidentally starting of the duty pumps.
- Supplied with pre-charged pressurizing tanks for smooth jockey pump operation.
- Relevant flow rates stated beside the duty performance of the pumping set (10.5).
- Operating conditions of the duty pumps fully displayed by the control panel (10.8.6.1).
- The signals of the operating conditions can be entirely remotized (10.8.6.2).
- Adequate capacity of diesel tank (10.9.6).
- Indication of a 25% drop in the level of the fuel (Appendix H 2.4).
- Diesel driven pump control panel powered simultaneously by two batteries(10.9.7.2).
- Automatic exclusion of a damaged battery in order to prevent spoiling the other one. (10.9.7.2).
- One dedicated battery charger for each battery to ensure operational reserve(10.9.9).
- Controlled-recharge battery charger for steady performance and long battery life (10.9.9).
- Kit of spares for diesel engines as mentioned by the standards (10.9.12) available on request.
- Suppression dampers on each side of the main pumps.
- Shock absorbers between every pump set and the anchoring frame.
- Metal fuel lines and tank.
- Suction diameter is calculated for less than 1,5m/sec velocity (in suction lift conditions) while the outlet remains under 3m/sec at the maximum design flow.



Reliable:

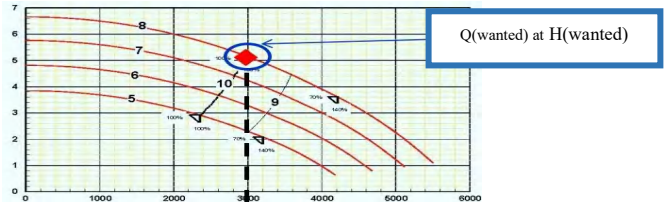


Picture 1.1

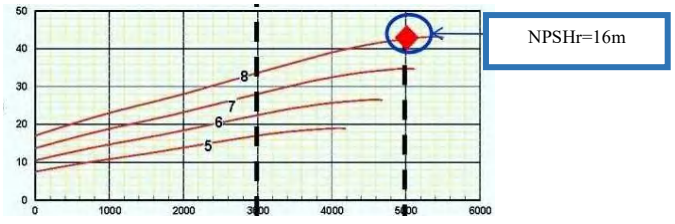
The modular structure consists of two or more pumps enables them to be separated into blocks for easy handling and positioning and transportation. Brentas PC constructs firefighting systems with the standard EN12845 observing absolutely the specifications of the new European model.

The systems constituted by pumps(electric, diesel and jockey) which have a steady curve that is a curve where the maximum head in the shut-off of the flow, is <= 120% of the wanted head and the head of the wanted flow multiply with the 40% of this,willa be >= of the 65% of the wanted head(Picture 1.1) .

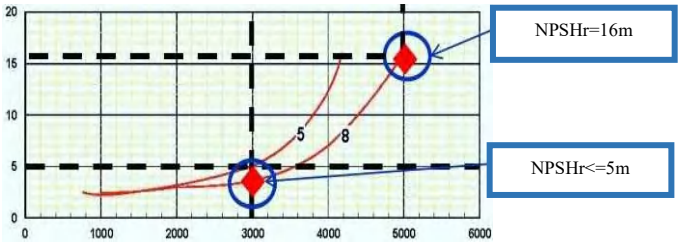
As the EN 12845 standard required, our fire-fighting systems also constructed with pumps for which the maximum power for any of them loading condition, form 0 capacity to the capacity corresponding to a requested pump **NPSH** equal to 16m or to the suction maximum pressure more 11m, what between them is major and less than 5m at the design point Q(wantedat the H(wanted))(Pictures 1.2, 1.3, 1.4). We use certificated pumps from companies like KSB, Grundfos and Foras, which meet all the above mentioned with all the specifications.



Picture 1.2



Picture 1.3



Picture 1.4

Performance Curves:

Pump Characteristics:

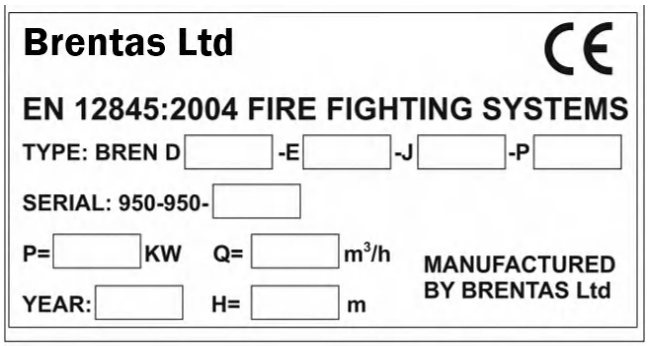
∗ All pumps according to EN733 back-pull-out design.
∗ Stable H (Q) curve, with less than 120% head when
∗ All pumps with power curve at 16m NPSH.
∗

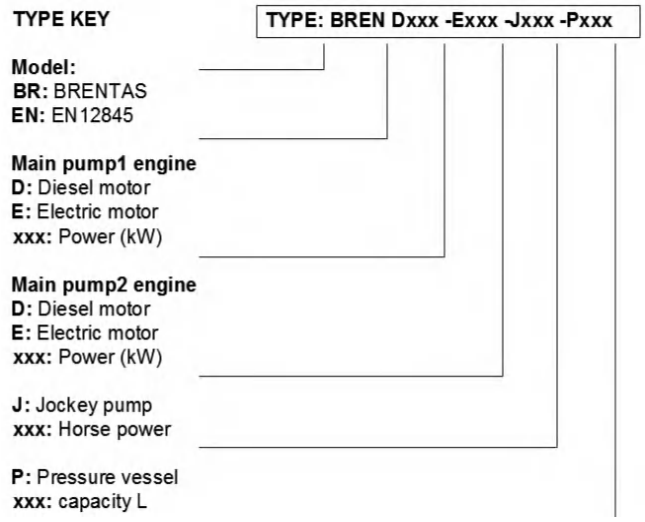
TYPE	Nominal Power (kW)	Motor Size	Q (m^3/h - l/min)																
			0	4,5	6	7,5	9	12	15	18	21	24	27	30	33	36	39	42	48
			0	75	100	125	150	200	250	300	350	400	450	500	550	600	650	700	800
			H (m) pump input power (kW)																
32-160C	1,5 2,2	90S 90L	24,7 0,69	24,4 0,96	24,1 1,15	23,6 1,26	23,0 1,40	21,5 1,50	19,6 1,55	17,2 1,70	14,1 1,74								
32-160B	2,2	90L	29,0 0,93		28,5 1,36	28,0 1,50	27,3 1,67	25,7 1,83	23,8 1,99	21,4 2,15	18,5 2,24	14,8 2,32							
32-160A	3 4	100L 112M	36,8 1,36		36,4 1,87	36,0 2,05	35,4 2,25	34,2 2,50	32,8 2,70	31,1 2,90	28,8 3,10	26,0 3,25	22,3 3,39						
32-200C	4	112M	40,1 1,57		39,7 2,2	39,6 1,57	39,3 2,53	38,3 2,84	36,9 3,13	35,2 3,38	33,0 3,61	30,4 3,82	27,6 4,02						
32-200B	5,5 7,5	132S 132S	50,1 2,17		50,2 2,95	50,1 3,18	49,9 3,38	49,3 3,78	48,0 4,15	46,4 4,49	44,5 4,78	42,4 5,07	39,8 5,38	37,2 5,64					
32-200A	7,5	132S	58,6 2,63		59,0 3,53	58,9 3,77	58,8 4,02	58,2 4,49	57,1 4,92	55,5 5,30	53,4 5,66	51,1 6,03	48,4 6,40	45,6 6,68	42,5 6,95				
32-250C	11	160M	70,0 4,89			68,5 6,15	68,0 6,48	67,0 7,11	65,5 7,74	63,5 8,19	61 8,54	58 8,89	50 9,24	36,5 9,63					
32-250B	11 15	160M 160M	82,0 6,45			81,0 8,02	80,5 8,35	79,5 9,00	78,5 9,56	77,0 10,1	74,5 10,5	71,9 11,2	65 11,8	52,5 12,1					
32-250A	15	160M	93,0 7,85			92,5 9,30	92,0 9,88	91,5 10,7	90,5 11,4	89,5 12,2	87,5 12,9	85 13,6	78,5 14,3	66 14,9					
40-125C	1,5 2,2	90S 90L	17,4 0,69			17,6 1,02	17,5 1,12	17,3 1,21	16,9 1,30	16,4 1,39	15,8 1,48	15,1 1,57	14,2 1,63	13,3 1,70					
40-125B	2,2	90L	20,7 0,9				21,3 1,26	21,2 1,48	21,0 1,61	20,6 1,80	20,1 1,91	19,4 2,02	18,7 2,13	17,9 2,22	17,0 2,32				
40-125A	3	100L	25,2 1,08				25,8 1,64	25,8 1,85	25,6 2,05	25,4 2,25	24,9 2,45	24,4 2,59	23,7 2,73	22,9 2,88	22,0 2,91	21,1 2,94			
40-160B	3 4	100L 112M	30,0 1,39				30,1 2,00	30,0 2,20	29,6 2,38	29,0 2,57	28,2 2,75	27,1 2,91	25,9 3,04	24,4 3,16	22,8 3,26	21,0 3,35	19,1 3,41		
40-160A	4 5,5	112M 132S	35,4 1,64				35,6 2,36	35,5 2,55	35,3 2,78	35,0 3,00	34,2 3,21	33,2 3,40	32,0 3,56	30,6 3,72	29,0 3,86	27,3 3,99	25,4 4,08	23,5 4,17	
40-200B	5,5	132S	44,7 2,3				44,9 3,3	44,8 3,6	44,6 3,8	44,0 4,2	42,9 4,6	41,6 4,6	40,0 5,0	38,1 5,3	36,1 5,4	33,6 5,6	30,8 5,7	27,9 6,0	
40-200A	7,5	132S	57,7 3,2				57,7 4,3	57,5 4,6	57,1 5,2	56,3 5,6	55,4 6,1	54,1 6,4	52,5 6,7	50,5 7,1	48,5 7,4	45,9 7,6	43,3 7,9	40,3 8,0	
40-250C	11	160M	63,0 4,40				62,6 5,60	62,4 6,08	61,9 6,61	61,3 7,13	60,5 7,63	59,7 8,10	58,6 8,57	57,1 9,04	55,0 9,45	52,4 9,83	49,6 10,22		
40-250B	11 15	160M 160M	70,8 5,16				71,3 6,65	71,2 7,22	71,0 7,76	70,5 8,28	69,8 8,80	68,4 9,33	66,6 9,86	65,4 10,35	63,8 10,82	61,2 11,25	58,5 11,69	55,6 12,11	
40-250A	15 18,5	160M 160L	86,1 6,70				86,3 8,24	86,5 8,89	86,4 9,58	86,0 10,29	85,6 10,97	85,0 11,65	84,1 12,31	82,9 12,95	81,3 13,55	79,4 14,13	77,0 14,74	74,3 15,32	67,9 16,27
50-125B	3 4	100L 112M	19,9 1,22					20,2 1,77	20,2 1,94	20,1 2,11	20,0 2,22	19,8 2,33	19,3 2,44	19,1 2,55	18,7 2,65	18,3 2,76	17,8 2,87	17,4 2,98	16,4 3,10
50-125A	4 5,5	112M 132S	24,5 1,78						25,0 2,54	24,9 2,70	24,8 2,85	24,6 3,01	24,4 3,17	24,2 3,33	23,8 3,42	23,5 3,50	23,1 3,59	22,7 3,87	21,8 4,14
50-160B	5,5	132S	31,1 2,1								32,1 3,6	32,0 3,8	31,7 4,0	31,4 4,2	31,0 4,4	30,4 4,6	29,7 4,7	28,9 4,9	27,3 4,9
50-160A	7,5	132S	36,7 2,6								37,9 4,2	37,8 4,5	37,7 4,9	37,4 5,1	37,1 5,4	36,6 5,6	36,1 5,9	35,4 6,2	33,9 6,5
50-200C	11	160M	46,0 3,25									45,6 6,08	45,1 6,30	44,5 6,53	43,7 6,76	42,9 7,11	41,8 7,46	40,8 7,82	38,5 8,17
50-200B	11	160M	50,8 3,38									51,0 6,68	50,5 7,53	50,0 7,80	49,3 8,20	48,5 8,46	47,7 8,81	46,8 9,15	44,7 9,50
50-200A	15	160M	58,0 4,63									58,3 7,89	58,0 8,28	57,5 8,67	57,0 9,08	56,4 9,49	55,7 9,89	55,0 10,3	53,2 10,7
50-250C	15 18,5	160M 160L	71,5 6,74										70,8 11,3	70,3 11,9	69,7 12,5	69,0 12,9	68,3 13,4	67,6 13,8	66,0 14,6
50-250B	18,5 22	160L 180M	78,0 6,87										78,0 12,0	77,4 12,7	76,8 13,3	76,1 14,0	75,3 14,6	74,5 15,3	72,8 15,9
50-250A	22 30	180M 200L	90,0 10,1										89,5 15,6	88,8 16,3	88,3 17,0	87,7 17,6	86,9 18,2	86,1 19,2	84,5 20,1
65-125B	5,5	132S	20,9 2,3											22,0 3,6	22,0 3,7	21,9 3,8	21,8 3,9	21,7 4,0	21,4 4,3
65-125A	7,5	132S	25,4 2,8											26,4 4,1	26,4 4,3	26,4 4,6	26,3 4,7	26,3 4,9	26,1 5,2
65-160C	11	160M	29,8 3,29															31,2 5,92	31,1 6,29
65-160B	11	160M	33,0 3,17															34,6 6,72	34,4 7,22
65-160A	15	160M	39,2 4,8															40,6 8,05	40,6 8,60
65-200C	15	160M	45,3 4,9																
65-200B	18,5	160L	51,6 5,4																
65-200A	22	180M	60,2 7,6																
65-250B	30	200L	81,0 10,6																
65-250A	37	200L	90,0 12,3																
80-160E	11	160M	21,4 3,6																
80-160D	11	160M	25,4 4,0																
80-160C	15	160M	29,7 5,2																
80-160B	18,5	160L	34,0 5,7																
80-160A	22	180M	38,8 7,3																
80-200B	30	200L	49,0 9,3																
80-200A	37	200L	58,0 11,7																
80-250 B	45	225M	77,2 14,00																
80-250 A	55	250M	90,0 16,75																
100-200 B	45	225M	56,1 21,75																
100-200 A	55	250M	61,1 24,57																
100-250 C	55 75	250M 280S	71,9 24,75																
100-250 B	75	280S	83,6 29,69																
100-250 A	90	280M	93,5 32,72																

TYPE	Q (m^3/h - l/min)																					
	54	60	66	72	78	84	96	108	120	132	144	156	168	180	195	210	225	240	270	300	330	360
	900	1000	1100	1200	1300	1400	1600	1800	2000	2200	2400	2600	2800	3000	3250	3500	3750	4000	4500	5000	5500	6000
	H (m) pump input power (kW)																					
50-125B	15,3 3,20	14,0 3,30	12,7 3,39	11,2 3,43																		
50-125A	20,8 4,42	19,6 4,58	18,1 4,74	16,5 4,90																		
50-160B	25,3 5,4	23,1 5,5	20,7 5,5	18,0 5,6	15,2 5,7																	
50-160A	32,1 6,9	30,0 7,1	27,8 7,3	25,3 7,5	22,6 7,6																	
50-200C	35,9 8,33	33,0 8,50	29,0 8,78	24,5 9,06																		
50-200B	42,2 9,85	39,5 10,1	35,9 10,4	32,0 10,6																		
50-200A	51,3 11,3	49,0 11,9	46,3 12,3	42,8 12,7	38,8 13,0																	
50-250C	64,0 15,5	61,5 16,3	58,6 17,0	55,0 17,7	50,5 18,4																	
50-250B	70,6 16,9	68,2 17,9	65,5 18,6	62,2 19,3	58,3 20,2																	
50-250A	82,7 21,1	80,5 22,0	78,0 23,0	75,2 23,9	71,7 24,8																	
65-125B	21,0 4,6	20,6 4,7	20,1 5,0	19,6 5,1	19,0 5,2	18,3 5,4	16,6 5,4	14,7 5,8	12,6 5,9													
65-125A	25,9 5,5	25,6 5,9	25,3 6,1	24,9 6,4	24,5 6,7	24,0 6,9	22,7 7,2	21,0 7,5	18,9 7,7	16,5 7,8												
65-160C	30,8 6,66	30,5 7,04	30,1 7,41	29,6 7,79	29,0 8,16	28,3 8,59	26,6 9,02	24,6 9,45	22,1 9,88	19,3 9,85	16,0 9,82											
65-160B	34,2 7,73	34,0 8,24	33,7 8,57	33,3 8,90	32,8 9,23	32,1 9,56	30,6 10,1	28,8 10,6	26,7 11,2	24,1 11,1	21,1 11,0											
65-160A	40,4 9,15	40,2 9,70	40,0 10,2	39,7 10,8	39,4 11,3	38,9 11,9	37,7 12,4	36,2 13,0	34,3 13,6	32,2 13,6	29,8 13,7											
65-200C	46,3 10,8	45,7 11,3	45,1 11,8	44,3 12,3	43,4 12,9	42,3 13,3	39,8 13,8	36,7 14,9	32,7 15,4	28,0 15,8												
65-200B	52,6 11,6	52,2 12,2	51,8 13,0	51,0 13,8	50,2 14,3	49,3 15,0	47,1 16,0	44,1 16,7	40,9 17,5	36,6 18,2	31,3 18,6											
65-200A	61,0 14,9	60,6 15,4	60,1 16,2	59,5 17,1	58,7 17,9	57,8 18,8	55,8 19,8	53,1 20,9	49,8 22,0	46,1 22,8	41,7 23,3											
65-250B	79,5 20,9	78,5 22,4	77,3 23,3	76,0 24,3	74,5 25,2	73,0 26,3	69,3 27,5	65,0 28,7	60,0 29,8	54,5 30,7	48,5 31,5											
65-250A	89,5 23,7	88,5 25,7	87,5 26,7	86,5 27,8	85,5 28,9	84,0 29,9	80,5 31,7	76,5 33,6	72,0 35,4	66,5 36,1	60,5 36,9	54,0 37,6										
80-160E			22,4 6,3	22,1 6,6	21,6 6,8	21,2 7,0	20,2 7,3	19,2 7,6	18,0 8,0	16,8 8,2	15,4 8,4	13,7 8,5	12,0 8,4									
80-160D			26,4 8,0	26,1 8,2	25,7 8,5	25,3 8,8	24,4 9,1	23,6 9,5	22,5 9,9	21,3 10,2	20,0 10,5	18,5 10,7	16,9 10,9	15,1 10,9								
80-160C			30,7 9,0	30,5 9,3	30,3 9,7	29,9 10,2	29,2 10,7	28,1 11,1	27,1 11,7	26,0 12,3	24,7 12,7	23,1 13,0	21,5 13,3	19,7 13,5	17,2 13,5							
80-160B			35,0 9,1	35,0 10,2	34,8 10,8	34,6 11,2	34,0 11,6	33,3 12,6	32,5 13,3	31,6 13,9	30,5 14,6	29,2 15,1	27,8 15,4	26,0 15,8	23,6 16,0	21,0 16,3						
80-160A			39,8 12,0	39,7 12,7	39,6 13,3	39,4 13,7	38,9 14,6	38,2 15,6	37,5 16,5	36,7 17,3	35,7 18,0	34,5 18,7	33,2 19,3	31,6 19,8	29,4 20,3	26,8 21,0	23,5 20,1					
80-200B						50,8 18,5	50,6 20,0	50,3 21,3	49,8 22,6	49,3 23,9	48,6 25,2	47,7 26,4	46,7 27,5	45,5 28,5	44,8 29,6	41,6 30,6	38,6 31,3					
80-200A							59,6 24,4	59,2 25,8	58,6 27,2	58,0 28,6	57,3 30,0	56,4 31,5	55,5 33,0	54,3 34,5	52,7 35,9	50,8 37,4	48,5 38,3	46,1 39,2				
80-250 B							80,0 30,93	79,0 32,60	77,5 34,34	75,3 36,16	73,1 37,86	71,0 39,38	69,0 40,78	67,0 42,10	64,5 43,60	61,8 44,94	58,8 46,16					
80-250 A							92,8 36,55	91,1 38,57	89,3 40,54	87,4 42,46	85,4 44,31	83,1 46,11	80,7 47,80	78,5 49,29	75,7 50,93	72,4 52,59	68,8 54,17	65,2 55,50				
100-200 B								56,8 28,84	56,5 29,75	56,1 30,73	55,6 31,75	55,1 32,80	54,5 33,89	53,9 35,07	53,1 36,55	52,2 37,81	51,4 38,89	50,4 39,85	47,5 41,59	43,8 42,92	39,7 43,82	
100-200 A								62,2 33,04	61,8 34,05	61,5 35,09	61,0 36,18	60,5 37,28	59,9 38,39	59,5 39,49	58,9 40,87	58,3 42,24	57,4 43,60	56,4 44,97	53,8 47,28	50,6 49,05	46,8 50,52	42,5 51,61
100-250 C									73,2 40,12	73,1 41,93	72,9 43,70	72,6 45,32	72,2 46,77	71,8 48,15	71,1 49,89	70,3 51,65	69,3 53,38	67,9 55,05	64,7 58,19	61,0 60,99		
100-250 B									83,7 47,10	83,5 49,07	83,2 51,01	82,9 52,89	82,5 54,76	82,1 56,55	81,4 58,55	80,8 60,25	80,0 61,86	79,0 63,51	76,4 66,93	72,0 70,90	67,6 73,78	
100-250 A									93,9 51,98	93,7 54,16	93,4 56,31	92,9 58,43	92,4 60,59	91,8 62,70	90,9 65,02	89,9 66,97	88,8 68,83	87,4 70,82	84,0 74,73	80,4 78,16	75,8 81,33	73,2 85,53

Standardization:

Name plate / Type key configuration:





System configuration variety:

The modular structure consist of two or more pumps enables them to be separated into blocks for easy transportation, handling and installing.

The duty pump configurations according to the standard (10.2) are:

a) 2 Electrically driven pumps,
b) electrically driven pump +1 diesel driven pump,
c) electrically driven pump +2 diesel driven pumps.

Construction:

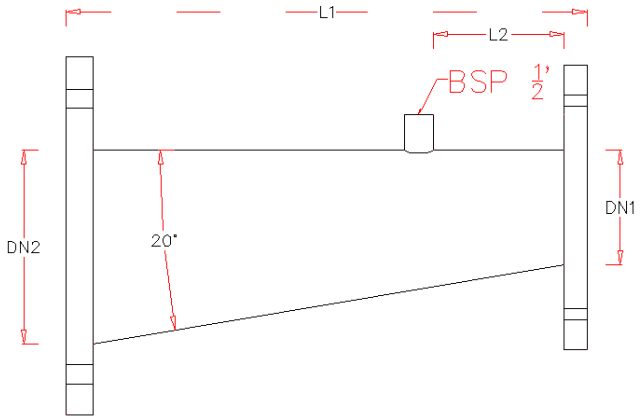
Depending on the size and power of the system, each pump set may be constructed and shipped independently or combined as a whole system, saving space, time and cost.

BREN type pumping sets are designed for fire-fighting applications such as automatic supply units for sprinkler or hydrant based systems.

Eccentric cone:

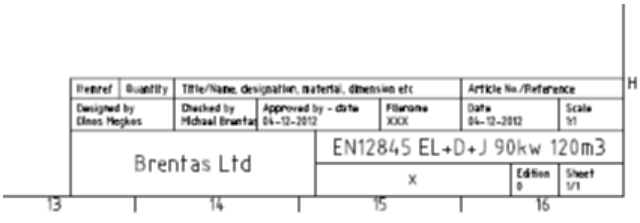
Each main pump inlet has to be calculated with 1,5m/sec velocity. For that reason an eccentric cone is supplied with the system.
According to the standard, the maximum angle of the tapered side should not exceed 20° .

We deliver our systems with a manometer having both negative and positive range of measurement in order to test the installed NPSH.



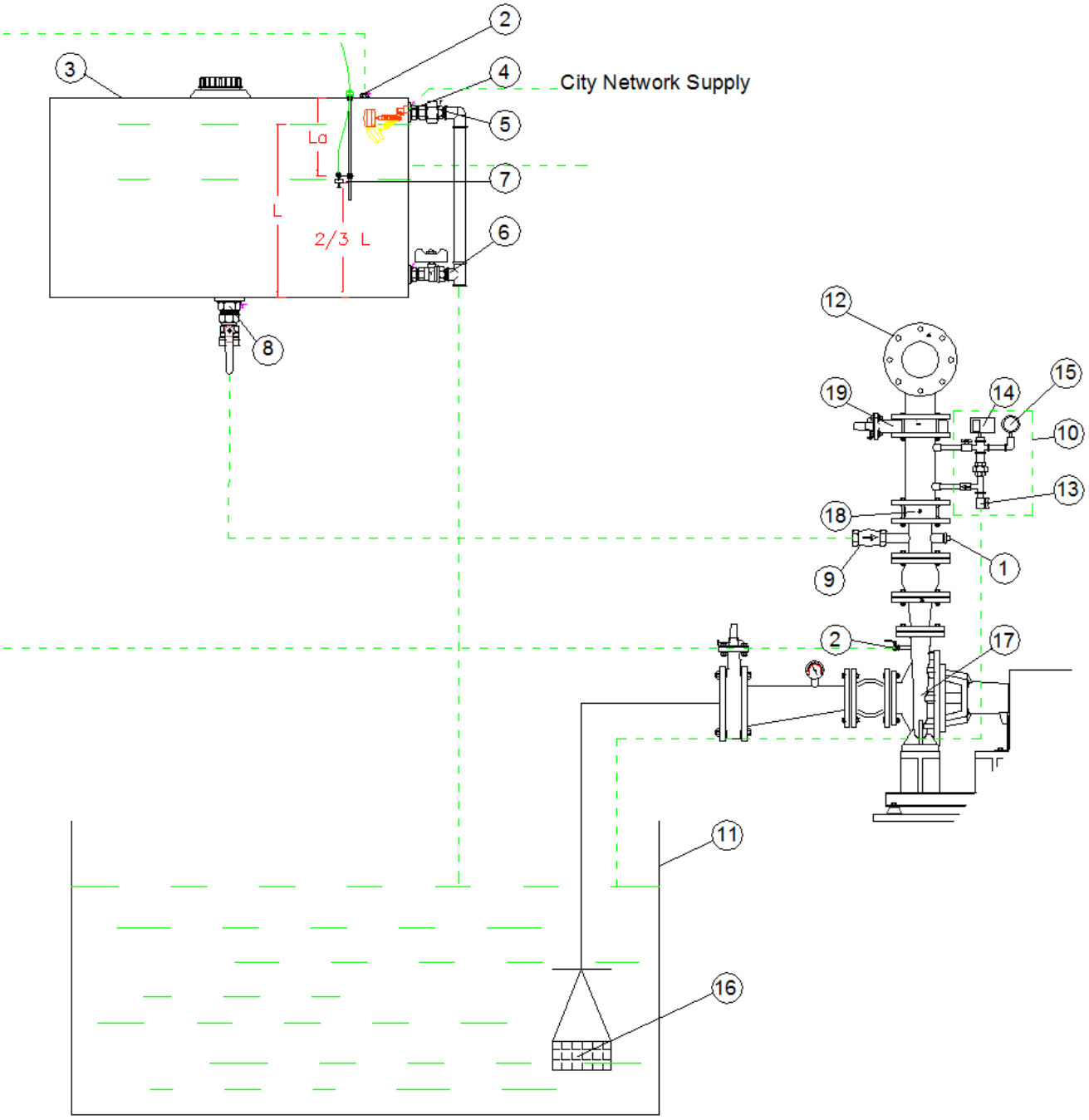
DN		DN2 (in)								
		2,5	3	4	5	6	8	10	12	14
DN1 (in)	2	230	230	230	330	330				
	2,5	-	230	230	230	330	530			
	3	-	-	230	230	230	430	630		
	4	-	-	-	230	230	330	530	630	
	5	-	-	-	-	230	230	430	530	630
	6	-	-	-	-	-	230	330	530	630
	8	-	-	-	-	-	-	230	330	430
L1 (mm)										
L2=80mm										

Complete documentation with drawings, datasheets, instruction manual (in English), certifications, warranty etc. are following every "BREN" type firefighting unit.



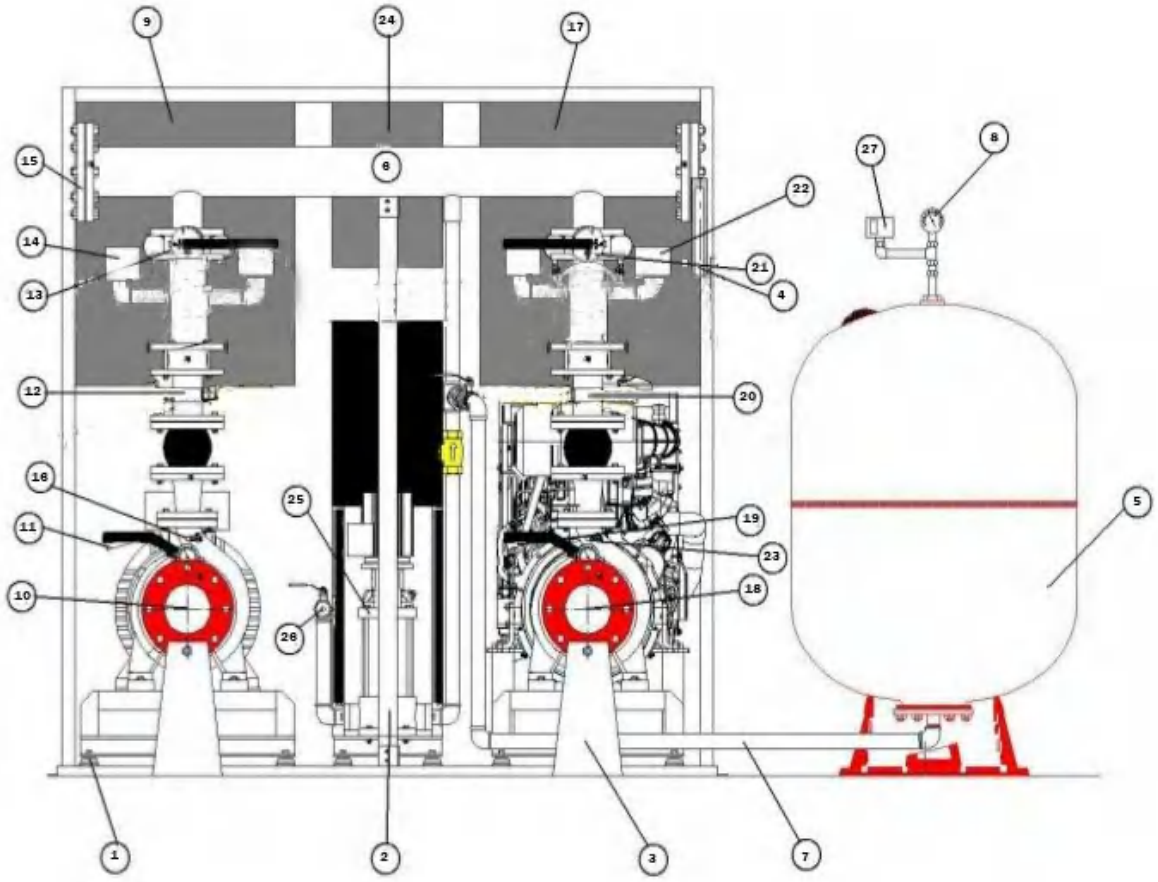
Pump Priming Tank:

For Negative Suction Lift Conditions Only:



1. Test drain and valve
2. Pump air bleed and min flow line
3. Pump priming tank
4. Inflow
5. Overflow
6. Drain valve
7. Low level switch for pump starting
8. Priming supply stop valve
9. Priming supply non-return valve
10. Pump start arrangement
11. Suction tank
12. Installation truck main
13. Low level valve for pump starting
14. Pressure switches for pump starting
15. Pressure gauge
16. Foot valve
17. Pump body
18. Discharge non-return valve
19. Discharge valve

Firefighting System Units:

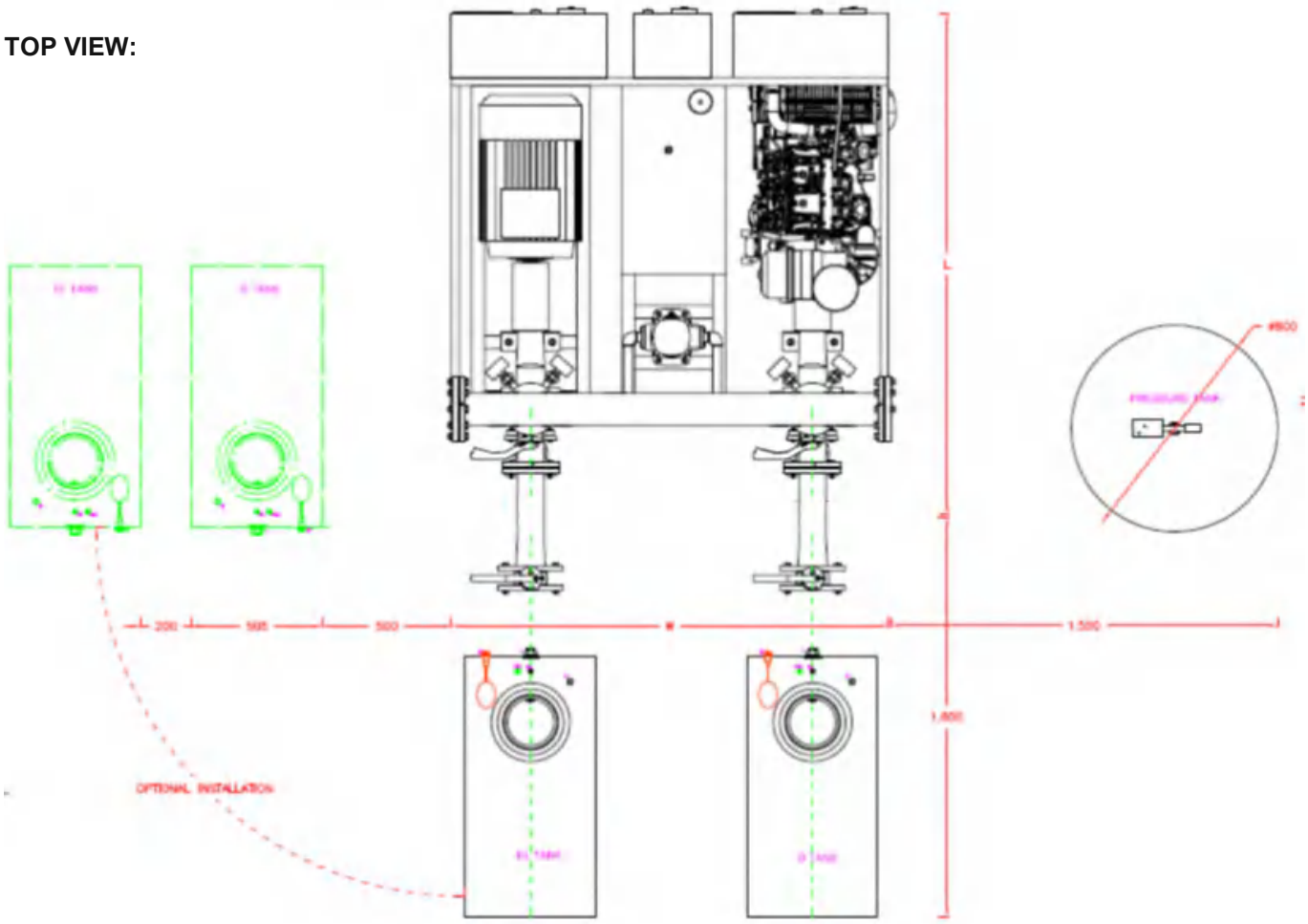


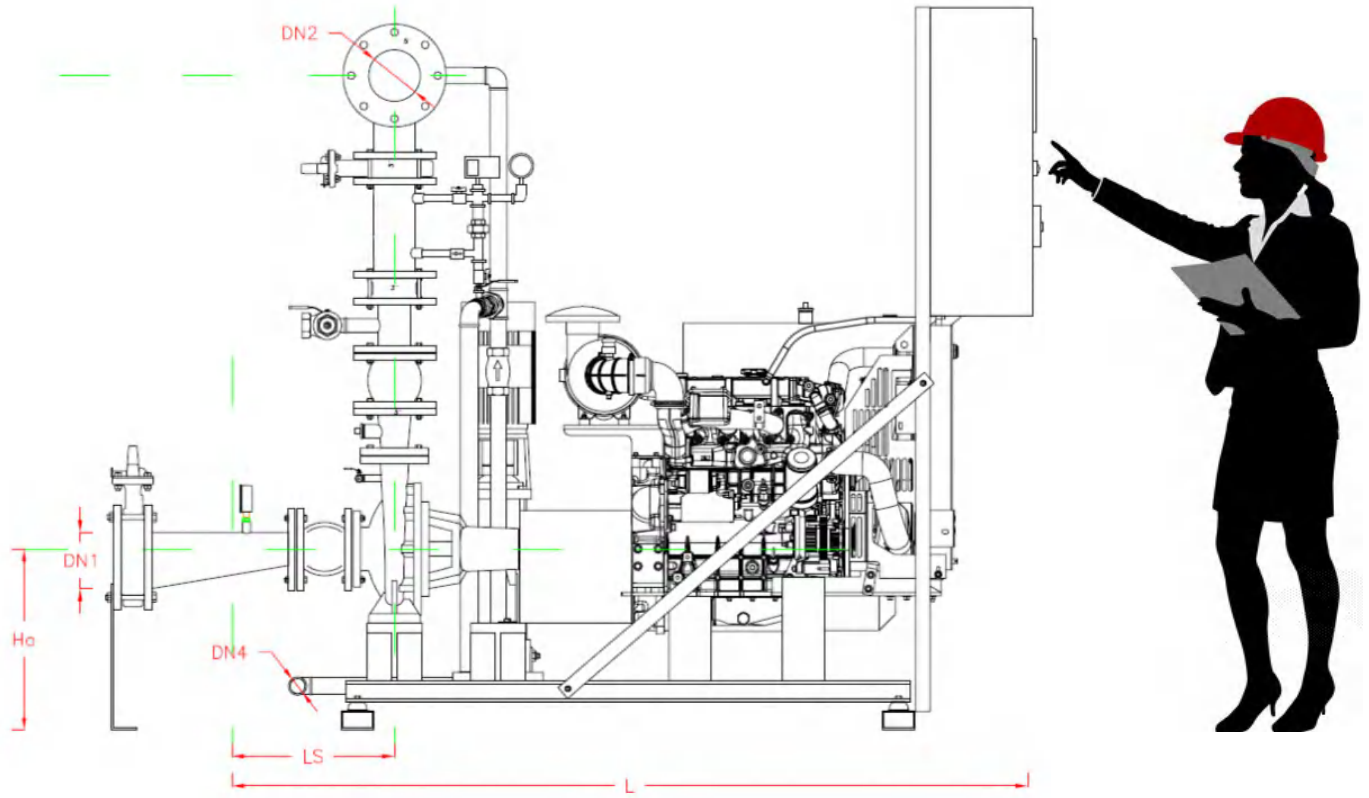
1. Vibration Dampeners
2. Pipe support
3. Support (remove after installation)
4. Flow meter
5. Pressure tank
6. Discharge pipe
7. Tank pipe
8. Manometer
9. Electrical panel
10. Pump suction
11. Inlet valve
12. Return valve
13. Discharge valve
14. Pressure switch
15. Flange connection
16. Priming tank filling valve
17. Electrical panel
18. Pump suction
19. Inlet valve
20. Return valve
21. Discharge valve
22. Pressure switch
23. Priming tank filling valve
24. Electrical panel
25. Pump body
26. Pump suction
27. Pressure switch

Placement:

Pump room arrangement in suction lift conditions.

TOP VIEW:





Full Control & Monitoring:

Control Panel Main Features:
Each panel is located behind the corresponding engine, facing the user side. All functions of the unit are controlled through the electrical panel. On the front side of the panel is the electronic controller which carries out all the automated functions.

* Electrostatically painted, IP54 steel panel control board.
* Fully accessible electronic controller with back-lite LCD display and (under film) push buttons.
* AUTO - 0 - MANUAL selective switch with removable key on AUTO position only.
* Main power switch handle on panel.
* Door lockers with removable key on LOCK position.
* Dry contacts for remote Building Management System "BMS".
* Safety & EN12845 stickers.

Diesel Engine pump Panel:

Contents inside:
√ 2x EN12845 dedicated chargers. (4x on 24V engines)
√ Relays.
√ Switches.
√ Fully addressed Din rail terminal cable connectors.

Visual messages:
* Double ammeters
* Double voltmeters
* Total hours meter
* partial hour meter
* Tachometer (rpm)
* Engine coolant temp (Celsius)
* Oil temp (Celsius)
* Oil pressure (bar)
* Fuel level (%)
* History log (time stamped)

Peripherals:
√ 2 pressure switches for each main pump.
√ 2 batteries for each diesel driving engine.

Electrical pump Panel:
All electrical panels are behind the engines and they are facing the user side. Each panel is behind the corresponding engine. All functions of the unit are controlled through the electrical panel. Only the hydraulic handlings are made away from the panel. On the front side of the panel is the electronic controller which carries all the automated functions.
All panels have door locks and the keys are near-by attached with a cable tie.
Keep drawings and manuals near to the panels in a safe place.

Contents on panel:
Main switch on panel.
Key door lockers.
Auto-0-manual select switch.
Emergency stop "mushroom" type switch.
Relays for star-delta connection.
Safety & EN12845 stickers.

Contents inside:
3x power contactors.
Relays.
Switches.
Din rail clamp connectors.

Overview:

Tests & Certifications:

Local and foreign organizations have tested our systems and we received excellent reviews by everyone
The European standard EN12845 has set new rules on building security with design and the functions on the firefighting units and sprinkler networks in total.
The standard requires

- EN733 stable curve pumps in back-pull-out design.
- Special arrangements in suction lift conditions.
- Tapered inlet cones on the main pumps.
- Over-sized driven engines either electric or diesel.
- 6h capacity steel-welded fuel tank for the diesel engines.
- Double pressure switches responsible for the ignition of the system.
- Dedicated control panels for each pumpset.
- Double batteries with dedicated chargers for each diesel engine and arrangements for alternate start up.
- Measuring devices, remote controls and many more…

The necessary reliability is achieved by ensuring that the functions and control devices comply with the EN12845 standards. Durable main pumps, proper jockey pump and complete control functions making BREN type fire-fighting units a reference solution on fire safety. Safe and consistent performance are ensured by appropriate choice for design, materials, characteristics and production processes.
The suitability of our units is the result of a structured process of development that simplifies installation, commissioning, periodic maintenance and tests.

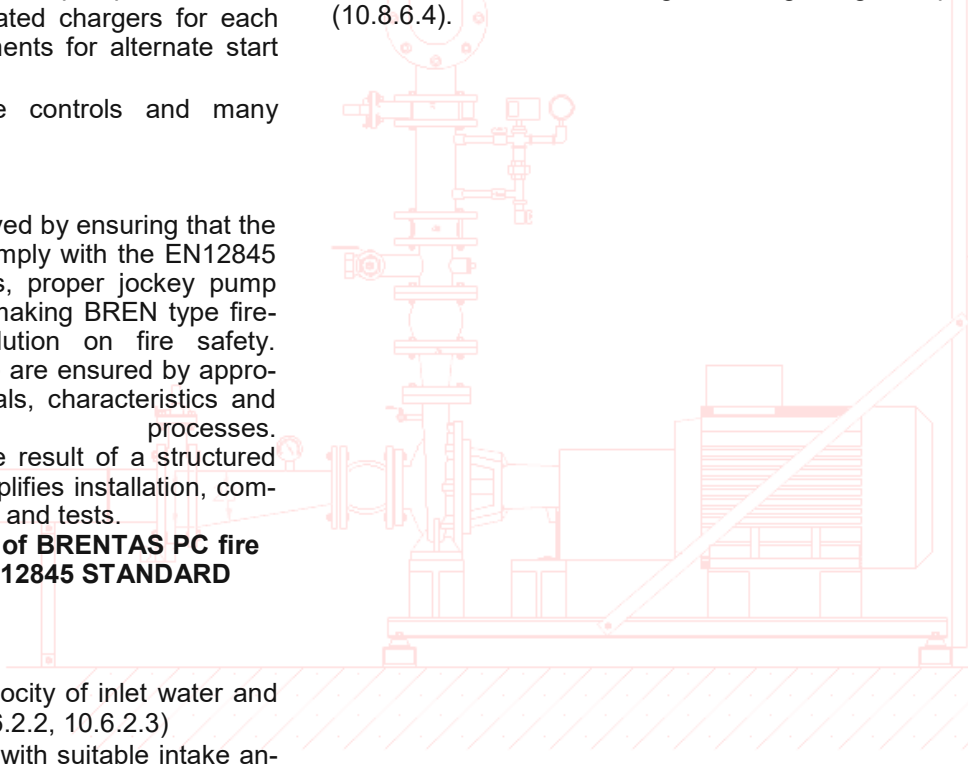
Prerogatives and advantages of BRENTAS PC fire fighting units, according to EN 12845 STANDARD

Reliability:

- Connections sized for low velocity of inlet water and correct suction capability (10.6.2.2, 10.6.2.3)
- Eccentric tapered connection with suitable intake angle (10.6.2.1) for disposing of any air that may have collected in the piping.
- Diffuser cone on the discharge side (10.5) for managing the output flow with low friction loss components.
- NPSH of the pump within regulation limits (10.6.2.1) to safeguard a correct suction capability.
- Diesel engines cooled by a heat exchanger (10.9.3) for power outputs of 30 kW upwards, in order to achieve effective disposal of the heat even for installation in small or poorly ventilated rooms.
- Metal pipes for diesel oil (10.9.6).
- Start-up of diesel engine with automatic sequence of six attempts and battery switching (10.9.7.2).

Periodic maintenance:

- Test devices easily accessible for routine checks (20.2).
- Alarms displayed with different colored lamps depending on the type of warning (10.9.11).
- Selective check of pressure-switches with individual testing (10.7.5.3)
- Detection of performance with effective measurement of capacity and pressure, the later on both the discharge and the suction sides of the duty pimps (10.9.13.1).
- Easy control for measurement of the design flow rate.
- Sensors and/or measuring devices installed at the main points of the pumping engine (10.9.7.1, 10.9.13.1).
- Test device for checking the signaling lamps (10.8.6.4).



TÜV HELLAS
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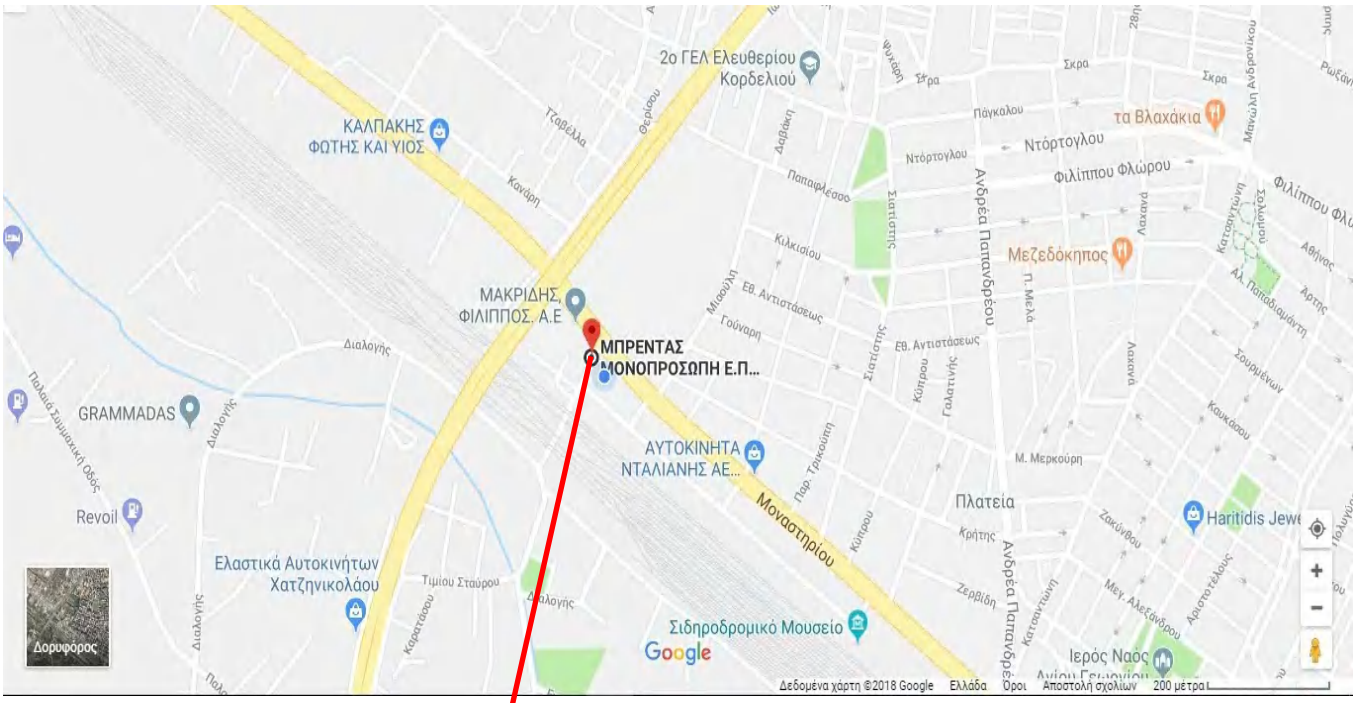
Contact us:



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