Rev.03
03/04/2026

MORIS
lifting up, make it safe

Chapter 2

POWER UNIT SELECTION

CHECK OIL QUANTITY
AUXILIARY TANK

Moris Italia s.r.l.
Via Per Cadrezzate, 21/C
21020 Brebbia (VA) - Italy
Tel. ++39 0332 984211 - Fax ++39 0332 984280
e-mail moris@moris.it
www.moris.it

MORIS ITALIA S.r.l. reserves the right to make changes without notice to all the documents Enclosed with this handbook and related production.

DRAWING	DESCRIPTION
9218/1/2/3	Hydraulic power unit index
9017	Table to determine the rates of pressure-speed-pump-motor (50 Hz) relative to rod diameter and load
9017-60 Hz	Table to determine the rates of pressure-speed-pump-motor (60 Hz) relative to rod diameter and load
9017/2	Table to determine the rates of pressure-speed-pump-motor (50 Hz) relative to rod diameter and load for low flow systems
9017/2-60	Table to determine the rates of pressure-speed-pump-motor (60 Hz) relative to rod diameter and load for low flow systems
9017/MED	Table to determine the rates of pressure-speed-pump-motor "MED" relative to rod diameter and load
9018/HL-50 Hz	Table to determine the rates of pressure-speed-pump-motor "AIR" (50 Hz) for "HL"power unit relating to rod diameter and load
9018/HL-MH2V-50Hz	Table to determine the rates of pressure-speed-pump-motor "AIR" (50 Hz) for "HL/2 speed" power unit relating to rod diameter and load
9018/HL-2V-50Hz	Table to determine the rates of pressure-speed-pump-motor "AIR" (50 Hz) for "HL/2 speed" power unit relating to rod diameter and load
9018/HL-OIL-265-50Hz	Table to determine the rates of pressure-speed-pump-motor "OIL" (50 Hz) for "HL-265" power unit relating to rod diameter and load
0948/HL-OIL-AR-CLOSED	Optional cover for HL/OIL-265 and HL/OIL-265-2V power unit without cabinet
9018/HL-OIL-265-2V 50Hz	Table to determine the rates of pressure-speed-pump-motor "OIL" (50 Hz) for "HL-265/2 speed" power unit relating to rod diameter and load (distributor's cast-iron body)
9018/HL-OIL-265-MH2V 50Hz	Table to determine the rates of pressure-speed-pump-motor "OIL" (50 Hz) for "HL-265/2 speed" power unit relating to rod diameter and load
9018/HL-MTW	Table to determine the rates of pressure-speed-pump-motor "AIR" (50 Hz) for "HL-MTW speed" power unit relating to rod diameter and load
9018/HL-HR	Table to determine the rates of pressure-speed-pump-motor "AIR" (100 Hz) for "HL-HR speed" power unit relating to rod diameter and load
9018/HL-320R-Mark2	Data sheet of power unit HL320R-Mark2 with MH2V valve.
9018/HL-320-Mark2	Data sheet of power unit HL320-Mark2 with MH2V valve.
9018/CM-320-R-Mark2	Data sheet of power unit CM320-R-Mark2
9018/CM-320-AR-Mark2	Data sheet of power unit CM320-AR-Mark2 (version locker)
9018/CM-320-R-Mark2+LRV	Data sheet of power unit CM320-R-Mark2 with LRV valve
9018/CM-320-R-Mark2+IV	Data sheet of power unit CM320-R-Mark2 with I-Valve
9018/CM-320-R-Mark2+VEM	Data sheet of power unit CM320-R-Mark2 with VEM Valve
9018/CM-320-Mark2	Data sheet of power unit CM320-Mark2
9018/CM-320-A-Mark2	Data sheet of power unit CM320-A-Mark2 (version locker)
9018/CM-320-Mark2+LRV	Data sheet of power unit CM320-Mark2 with LRV valve
9018/CM-320-Mark2+IV	Data sheet of power unit CM320-Mark2 with I-Valve
9018/CM-320-Mark2+VEM	Data sheet of power unit CM320-Mark2 with VEM Valve
9018/CM-320-TS	Data sheet of power unit CM320-TS
9018/CM-Mark2	Data sheet of power unit CM-Mark2
9018/CM-A-Mark2	Data sheet of power unit CM-A-Mark2 (version locker)
9018/CM-Mark2 + LRV	Data sheet of power unit CM-Mark2 with LRV valve
9018/CM-Mark2 + IV	Data sheet of power unit CM-Mark2 with I-Valve
9018/CM-Mark2 + VEM	Data sheet of power unit CM-Mark2 with VEM Valve
9211/CA	Data sheet of power unit CA
9018/CA-LRV	Data sheet of power unit CA with LRV valve
9018/CA-IV	Data sheet of power unit CA with I-Valve
9211/CA/A	Data sheet of power unit CA/A
9018/CA/A-LRV	Data sheet of power unit CA/A with LRV Valve
9018/CA/A-IV	Data sheet of power unit CA/A with I-Valve
9211/CG	Data sheet of power unit CG
9018/CG-IV	Data sheet of power unit CG with I-Valve
9211/CG-XL	Data sheet of power unit CG-XL

DRAWING	DESCRIPTION
9018/CG-XL-IV	Data sheet of power unit CG-XL with I-Valve
9018/CIF-2	Data sheet of power unit in the pit CIF-2
9018/CIF-2-MB	Data sheet of power unit in the pit CIF-2-MB
TAV00000082-A0	Power unit dimensions CA; CA/A; CG; CG/XL with HSV
9213	Notes of gearcases handling
9215/1	Test of oil amount in power unit
9215/2	Test of oil amount in power unit
9280	Intructions for power unit assembling
9290	Auxiliary tank against power unit oil spills EN 81.20 CA - CA/A
9291	Auxiliary tank against power unit oil spills EN 81.20 CM320RMark2-CM320Mark2,CMMark2

UNIT TYPE	MOTOR POWER THREE PHASE CV (KW)	PUMP DELIVERY L/1'	PIPE FLEX	OD. DIA PIPE STEEL (mm)	CYL. PORT	WEIGHT WITHOUT OIL (Kg)	QUANTITY OF OIL (LITRES)		
							MIN. LEV.	USE	TOTAL
HL-AIR 300	1 - 3 (*) (0.75 - 2.2)	8 — 23	3/4" (DN19)	22	M M 30x2	50	4	38	42
HL-AIR 420	1 - 3 (*) (0.75 - 2.2)	8 — 23	3/4" (DN19)	22	M M 30x2	60	5	55	60
HL-AIR 300-MH2V	1 - 4 (*) (0.75 - 3)	8 — 30	3/4" (DN19)	22	M M 30x2	45	4	38	42
HL-AIR 420-MH2V	1 - 4 (*) (0.75 - 3)	8 — 30	3/4" (DN19)	22	M M 30x2	55	5/8	55/52	60
HL-AIR 420-2V	1 - 4 (*) (0.75 - 3)	8 — 30	3/4" (DN19)	22	M M 30x2	75	5/8	55/52	60
HL-OIL 265	1 - 3 (*) (0.75 - 2.2)	8 — 23	3/4" (DN19)	22	M M 30x2	55	9	40	49
HL-OIL 265 2V	1 - 6 (*) (0.75 - 4.4)	8 — 45	3/4" (DN19)	22	M M 30x2	65	9	40	49
HL-OIL 265 MH2V	1 - 4 (*) (0.75 - 3)	8 — 30	3/4" (DN19)	22	M M 30x2	65	9	40	49
HL-MTW	1 - 4 (*) (0.75 - 3)	8 — 30	3/4" (DN19)	22	M M 30x2	40	5/6	45/44	50
HL-HR	3 (2.2)	18	3/4" (DN19)	22	M M 30x2	50	4	38	42
HL320-R MARK2-MH2V	2.7 - 4 (*) (2 - 3)	18 — 30	3/4" (DN19)	22	M M 30x2	115	45	70	115
HL320 MARK2-MH2V	2.7 - 4 (*) (2 - 3)	18 — 30	3/4" (DN19)	22	M M 30x2	117	50	85	135
CM320-R MARK2	2.7 - 13 (*) (2 - 9.5)	18 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	122	45	70	115
CM320-R MARK2-A	2.7 - 13 (*) (2 - 9.5)	18 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	115	45	70	115
CM320-R MARK2-LRV	2.7 - 13 (*) (2 - 9.5)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	115	45	70	115
CM320-R MARK2-IV	2.7 - 13 (*) (2 - 9.5)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	115	45	70	115
CM320-R MARK2-VEM	2.7 - 13 (*) (2 - 9.5)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	115	45	70	115
CM320 MARK2	2.7 - 20 (*) (2 - 15)	18 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	125	50	85	135
CM320 MARK2-A	2.7 - 20 (*) (2 - 15)	18 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	117	50	85	135
CM320 MARK2-LRV	2.7 - 20 (*) (2 - 15)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	117	50	85	135
CM320 MARK2-IV	2.7 - 20 (*) (2 - 15)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	117	50	85	135
CM320 MARK2-VEM	2.7 - 20 (*) (2 - 15)	30 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	117	50	85	135
CM320 TS	2.7 - 20 (*) (2 - 15)	18 — 150	1" (DN25) 1"1/4 (DN32)	28 35	M M 36x2 M M 45x2	135	50	85	135

(*) SINGLE-PHASE MOTOR AVAILABLE

UT

HYDRAULIC POWER UNIT TABLE

DATE 11/24

DWG Nr. 9218/1

UNIT TYPE	MOTOR POWER THREE PHASE CV (KW)	PUMP DELIVERY L/1'	PIPE FLEX	OD. DIA PIPE STEEL (mm)	CYL. PORT	WEIGHT WITHOUT OIL (Kg)	QUANTITY OF OIL (LITRES)		
							MIN. LEV.	USE	TOTAL
CM-MARK2	6 - 25 (4.5 - 18.5)	30 — 210	1" (DN25)		M 36x2	136	65	150	215
			1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
CM-MARK2 A	6 - 25 (*) (4.5 - 18.5)	30 — 210	1" (DN25)	28	M M 36x2	126	65	150	215
			1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
CM-MARK2 LRV	6 - 25 (*) (4.5 - 18.5)	55 — 210	1" (DN25)	28	M M 36x2	126	65	150	215
			1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
CM-MARK2 IV	6 - 25 (*) (4.5 - 18.5)	30 — 150	1" (DN25)	28	M M 36x2	126	65	150	215
			1"1/4 (DN32)	35	M M 45x2				
		180 — 210	1"1/2 (DN38)	42	M M 52x2				
CM-MARK2 VEM	6 - 25 (*) (4.5 - 18.5)	30 — 250	1" (DN25)	28	M M 36x2	126	65	150	215
			1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
CA	6 - 40 (4.5 - 30)	75 — 150	1" (DN25)	28	M M 36x2	200	55	245	300
			1"1/4 (DN32)	35	M M 45x2				
		180 — 380	1"1/2 (DN38)	42	M M 52x2				
CA-LRV	6 - 40 (4.5 - 30)	35 — 150	1" (DN25)	28	M M 36x2	138	55	245	300
			1"1/4 (DN32)	35	M M 45x2				
		180 — 380	1"1/2 (DN38)	42	M M 52x2				
CA-IV	6 - 40 (4.5 - 30)	35 — 150	1" (DN25)	28	M M 36x2	138	55	245	300
			1"1/4 (DN32)	35	M M 45x2				
		180 — 380	1"1/2 (DN38)	42	M M 52x2				
CA/A	10 - 50 (7.4 - 37)	150 — 250	1"1/2 (DN38)	42	M M 52x2	315	160	310	470
		300 — 380							
CA/A-LRV	13 - 50 (9.5 - 37)	180 — 250	1" (DN25)	28	M M 36x2	315	160	310	470
			1"1/4 (DN32)	35	M M 45x2				
		300 — 380	1"1/2 (DN38)	42	M M 52x2				
CA/A-IV	13 - 50 (9.5 - 37)	180 — 250	1" (DN25)		M 36x2	315	160	310	470
			1"1/4 (DN32)	35	M M 45x2				
		300 — 380	1"1/2 (DN38)	42	M M 52x2				
CG	16 - 100 (12 - 75)	250	1"1/2 (DN38)	42	M M 52x2	360	220	530	750
		300 — 380	2" (DN50)	/	M 2" GAS				
		440 — 650							
CG+hsv650	16 - 100 (12 - 75)	330 — 380	1"1/2 (DN38)	42	M M 52x2	382	220	530	750
		440 — 650	2" (DN50)	/	M 2" GAS				
CG-IV	16 - 80 (12 - 60)	180 — 250	1" (DN25)	28	M M 36x2	360	220	600	820
		300 — 380	1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
		440 — 500	2" (DN50)	/	2" GAS				
CG-XL	16 - 100 (12 - 75)	250	1"1/2 (DN38)	42	M M 52x2	400	220	830	1050
		300 — 380	2" (DN50)	/	M 2" GAS				
		440 — 650							
CG-XL-IV	16 - 80 (12 - 60)	180 — 250	1" (DN25)	28	M M 36x2	400	220	830	1050
		300 — 380	1"1/4 (DN32)	35	M M 45x2				
			1"1/2 (DN38)	42	M M 52x2				
		440 — 500	2" (DN50)	/	2" GAS				

(*) SINGLE-PHASE MOTOR AVAILABLE

UT

HYDRAULIC POWER UNIT TABLE

DATE 11/24

DWG Nr. 9218/2

9218/2-IN

UNIT TYPE	MOTOR POWER THREE PHASE CV (KW)	PUMP DELIVERY L/1'	PIPE FLEX	OD. DIA PIPE STEEL (mm)	CYL. PORT	WEIGHT WITHOUT OIL (Kg)	QUANTITY OF OIL (LITRES)		
							MIN. LEV.	USE	TOTAL
CIF-2	6 - 30 (4.5 - 22.5)	35 — 250	1"1/4 (DN32)	35	M M 45x2	160	70	200	270
			1"1/2 (DN38)	42	M M 52x2				
CIF-2 MB	6 - 30 (4.5 - 22.5)	35 — 250	1"1/4 (DN32)	35	M M 45x2	160	70	210	280
			1"1/2 (DN38)	42	M M 52x2				

(*) SINGLE-PHASE MOTOR AVAILABLE

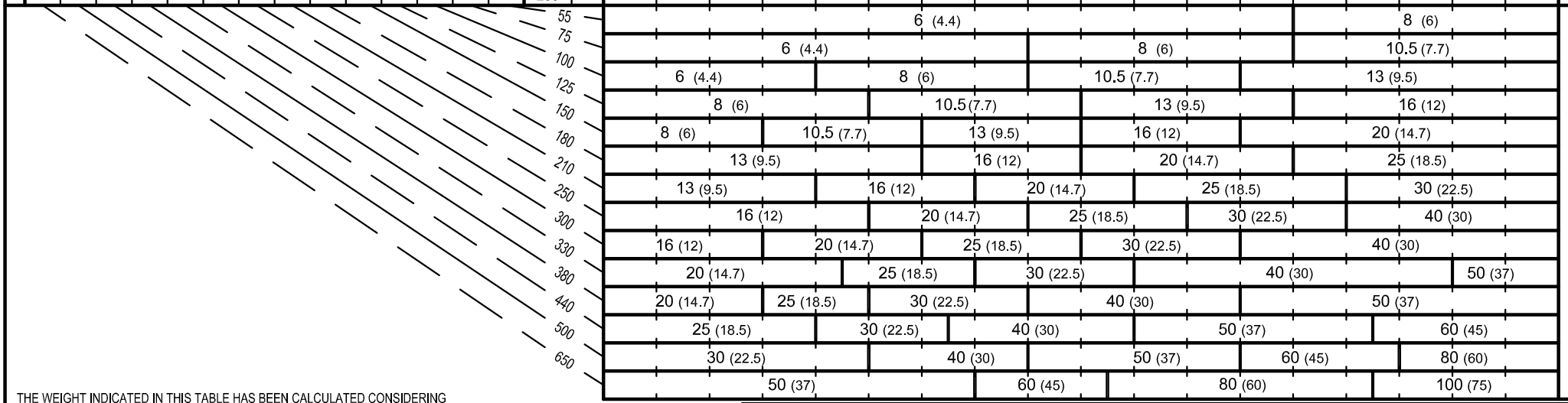
UT

HYDRAULIC POWER UNIT TABLE

DATE 11/24

DWG Nr. 9218/2

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)															RAM		STATIC PRESSURE IN BARS																							TOTAL LOAD (USEFUL LOAD + CAR + CAR-FRAME + ACC. = kg)
PUMP L/1'																	12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46							
650	500	440	380	330	300	250	210	180	150	125	100	75	55	Ød	e																								
										0.71	0.57	0.42	0.30	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240		
															7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216		
								0.76	0.61	0.52	0.42	0.31	0.22	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689		
															7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657		
						0.80	0.67	0.58	0.47	0.40	0.31	0.25	0.17	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212		
															7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157		
															12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074		
						0.73	0.61	0.52	0.44	0.36	0.29	0.22	0.16	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425		
															5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798		
				0.82	0.75	0.65	0.53	0.46	0.37	0.31	0.26	0.18	0.13	90	7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725		
															12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624		
		0.93	0.77	0.67	0.61	0.52	0.43	0.37	0.31	0.26	0.20	0.15	0.11	100	5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463		
															7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376		
															12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141		
	0.85	0.77	0.65	0.55	0.50	0.43	0.36	0.31	0.26	0.21	0.17	0.12	0.09	110	5	960	1148	1338	1528	1718	1908	2098	2238	2478	2669	2889	3049	3239	3429	3619	3809	3999	4189		
															7.5	857	1047	1237	1427	1617	1807	1997	2188	2377	2568	2758	2948	3138	3328	3518	3708	3898	4088		
															12	674	864	1054	1244	1434	1624	1814	2004	2194	2384	2574	2764	2954	3144	3334	3524	3714	3904		
0.95	0.73	0.64	0.55	0.47	0.43	0.36	0.31	0.26	0.21	0.18	0.15	0.11	0.08	120	5	1156	1383	1609	1835	2061	2287	2513	2740	2966	3192	3418	3645	3871	4097	4323	4549	4775	5002		
															7.5	1046	1272	1498	1724	1951	2177	2403	2629	2856	3082	3308	3534	3760	3986	4213	4439	4665	4891		
															12	845	1071	1297	1523	1749	1975	2202	2428	2654	2880	3106	3333	3559	3785	4011	4237	4463	4690		
0.81	0.62	0.55	0.45	0.39	0.36	0.31	0.26	0.22	0.18	0.15	0.12	0.09	0.06	130	5	1358	1624	1890	2155	2420	2686	2952	3217	3482	3748	4013	4279	4544	4810	5073	5341	5606	5871		
															7.5	1216	1482	1747	2013	2278	2544	2809	3075	3340	3605	3871	4137	4402	4668	4933	5198	5464	5729		
															12	1031	1297	1562	1827	2093	2358	2623	2889	3154	3419	3685	3950	4215	4481	4746	5011	5277	5542		
0.61	0.47	0.41	0.35	0.29	0.27	0.23	0.20	0.16	0.13	0.11	0.09	0.06		150	6	1748	2102	2455	2808	3165	3515	3869	4222	4576	4929	5282	5636	5990	6343	6697	7050	7403	7759		
															10	1548	1902	2255	2608	2962	3315	3669	4022	4376	4729	5082	5436	5789	6143	6496	6850	7203	7756		
0.53	0.41	0.36	0.31	0.27	0.25	0.21	0.17	0.15	0.12	0.10	0.08			160	10	1800	2200	2601	3004	3406	3808	4210	4612	5015	5417	5819	6221	6623	7025	7427	7830	8232	8634		
0.42	0.32	0.28	0.24	0.22	0.20	0.16	0.13	0.11	0.09	0.07	0.06			180	10	2330	2839	3348	3857	4366	4875	5384	5893	6402	6914	7420	7930	8438	8947	9456	9956	10473	10982		
0.34	0.26	0.23	0.20	0.16	0.15	0.13	0.10	0.09	0.07	0.06				200	10	2960	3588	4216	4845	5473	6102	6730	7358	7986	8615	9243	9871	10500	11128	11756	12385	13013	13641		
0.24	0.18	0.16	0.13	0.12	0.11	0.09	0.07	0.06						238	14	4098	4988	5878	6767	7657	8547	9437	10326	11216	12106	12996	13885	14775	15665	16555	17444	18334	19224		



THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING
THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... - 9030/...)

UT			TABLE TO DETERMINE THE RATES OF PRESSURE - SPEED - PUMP - - MOTOR (50Hz) RELATIVE TO ROD DIAMETER AND LOAD	DATE 06/19
				DWG N. 9017

9017-ING

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)

PUMP L/1' *	PUMP L/1' **	RAM ⌀d	RAM e	STATIC PRESSURE IN BARS 12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
600	500	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
528	440		7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
456	380	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
396	330		7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
360	300	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
300	250		7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
252	210		12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
216	180	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
180	150	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
150	125		7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
120	100		12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624
90	75	100	5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463
66	55		7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376
			12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141
		110	5	960	1148	1338	1528	1718	1908	2098	2238	2478	2669	2889	3049	3239	3429	3619	3809	3999	4189
			7.5	857	1047	1237	1427	1617	1807	1997	2188	2377	2568	2758	2948	3138	3328	3518	3708	3898	4088
			12	674	864	1054	1244	1434	1624	1814	2004	2194	2384	2574	2764	2954	3144	3334	3524	3714	3904
		120	5	1156	1383	1609	1835	2061	2287	2513	2740	2966	3192	3418	3645	3871	4097	4323	4549	4775	5002
			7.5	1046	1272	1498	1724	1951	2177	2403	2629	2856	3082	3308	3534	3760	3986	4213	4439	4665	4891
			12	845	1071	1297	1523	1749	1975	2202	2428	2654	2880	3106	3333	3559	3785	4011	4237	4463	4690
		130	5	1358	1624	1890	2155	2420	2686	2952	3217	3482	3748	4013	4279	4544	4810	5073	5341	5606	5871
			7.5	1216	1482	1747	2013	2278	2544	2809	3075	3340	3605	3871	4137	4402	4668	4933	5198	5464	5729
			12	1031	1297	1562	1827	2093	2358	2623	2889	3154	3419	3685	3950	4215	4481	4746	5011	5277	5542
		150	6	1748	2102	2455	2808	3165	3515	3869	4222	4576	4929	5282	5636	5990	6343	6697	7050	7403	7759
			10	1548	1902	2255	2608	2962	3315	3669	4022	4376	4729	5082	5436	5789	6143	6496	6850	7203	7756
		160	10	1800	2200	2601	3004	3406	3808	4210	4612	5015	5417	5819	6221	6623	7025	7427	7830	8232	8634
		180	10	2330	2839	3348	3857	4366	4875	5384	5893	6402	6914	7420	7930	8438	8947	9456	9956	10473	10982
		200	10	2960	3588	4216	4845	5473	6102	6730	7358	7986	8615	9243	9871	10500	11128	11756	12385	13013	13641
		238	14	4098	4988	5878	6767	7657	8547	9437	10326	11216	12106	12996	13885	14775	15665	16555	17444	18334	19224

TOTAL LOAD
(USEFUL LOAD + CAR + CAR-FRAME + ACC. = kg)

MOTOR POWER (60Hz) H.P. (Kw)

66	5 (3.6)																																			
90	5 (3.6)																																			
120	7.2 (5.3)																																			
150	7.2 (5.3)																																			
180	10 (7.3)																																			
216	12.5 (9.2)																																			
252	15 (11)																																			
300	18 (13.2)																																			
360	20 (15)																																			
396	25 (18.5)																																			
456	25 (18.5)																																			
528	33 (24)																																			
600	40 (29)																																			
	5 (3.6)																																			
	7.2 (5.3)																																			
	10 (7.3)																																			
	12.5 (9.2)																																			
	15 (11)																																			
	18 (13.2)																																			
	20 (15)																																			
	25 (18.5)																																			
	33 (24)																																			
	40 (29)																																			
	50 (37)																																			
	54 (40)																																			
	65 (48)																																			
	77 (57)																																			
	98 (72)																																			

* VALUES REFER TO THE ACTUAL CAPACITY OF THE PUMPS WITH MOTOR 60 Hz
** SIZE OF THE PUMP AT 50 Hz
THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING
THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... - 9030/...)

UT	TABLE TO DETERMINE THE RATES OF PRESSURE - SPEED - PUMP - - MOTOR (60Hz) RELATIVE TO ROD DIAMETER AND LOAD	DATE 12/18
		DWG. N° 9017-60Hz

9017-60Hz-IN

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	PUMP L/1'							RAM		STATIC PRESSURE IN BARS																	TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC. =Kg)
	75	55	45	35	30	23	15	Ød	e	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	
	0.60	0.44	0.38	0.30	0.25	0.19	0.12	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870																	
									7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856																	
	0.42	0.30	0.26	0.20	0.17	0.13	0.08	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240																	
									7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216																	
	0.31	0.22	0.19	0.15	0.12	0.09	0.06	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689																	
									7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657																	
	0.25	0.17	0.14	0.11	0.10	0.07	0.05	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212																	
									7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157																	
									12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074																	
	0.22	0.16	0.13	0.10	0.08	0.06	0.04	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425																	
	0.18	0.13	0.11	0.09	0.08	0.06	0.04	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798																	
									7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725																	
									12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624																	
	0.15	0.11	0.09	0.07	0.06	0.05	/	100	5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463																	
									7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376																	
									12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141																	
	0.13	0.10	0.08	0.06	0.05	0.04	/	110	5	960	1148	1338	1528	1718	1908	2098	2238	2478	2669	2889	3049	3239	3429	3619	3809	3999	4189																	
									7.5	857	1047	1237	1427	1617	1807	1997	2188	2377	2568	2758	2948	3138	3328	3518	3708	3898	4088																	
									12	674	864	1054	1244	1434	1624	1814	2004	2194	2384	2574	2764	2954	3144	3334	3524	3714	3904																	

	MONOFASE 230V 50HZ MOTOR POWER IN HP (kW)																																													
15	2 (1.5)																																										3 (2.2)		
23	2 (1.5)																										3 (2.2)																	4 (2.9)		
30	3 (2.2)																												4 (3)															5 (3.7)		
35	3 (2.2)																						4 (2.9)																					5 (3.7)		
45	4 (2.9)																	5 (3.7)																											6.5 (4.8)		
55	4 (2.9)																	5 (3.7)																											6.5 (4.8)		
75	5 (3.7)																						6.5 (4.8)																					8 (6)		

	THREE PHASE 380V 50HZ MOTOR POWER IN HP (kW)																																													
15	2 (1.5)																																													
23	2 (1.5)																																												2.7 (2)		
30	2.7 (2)																																												4 (3)		
35	2.7 (2)																																												4 (3)		
45	4 (3)																																												6 (4.4)		
55	REF. TABLE 9017																																														
75	REF. TABLE 9017																																													

NOTE:

- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

UT			TABLE TO DETERMINE THE RATES OF PRESSURE-SPEED - PUMP- MOTOR (50Hz) RELATING TO ROD Ø AND LOAD	DATA 09/20
				DIS. N° 9017/2

	PUMP L/1'							RAM		STATIC PRESSURE (BAR)																	
*	90	66	54	42	36	27	18	Ød	e	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
**	75	55	45	35	30	23	15																																
SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	0.72	0.52	0.45	0.36	0,26	0.22	0.14	50	5	281		320		359		398		438		477		516		556		595		634		673		713		752		791		830		870
									7.5	267		306		345		384		424		463		502		542		581		620		659		699		738		777		816		856
	0.50	0.36	0.32	0.24	0,18	0.15	0.09	60	5	392		450		505		562		618		675		732		788		845		901		958		1015		1071		1128		1184		1240
									7.5	368		425		481		538		594		651		707		764		820		877		933		990		1046		1103		1160		1216
	0.37	0.26	0.23	0.18	0,13	0.10	0.07	70	5	535		612		688		766		843		920		997		1074		1151		1227		1305		1382		1458		1535		1612		1689
									7.5	502		579		656		733		810		887		964		1041		1118		1195		1272		1349		1426		1503		1580		1657
	0.30	0.21	0.18	0.14	0,11	0.09	0.06	80	5	704		805		905		1006		1106		1207		1307		1408		1508		1609		1709		1810		1910		2011		2111		2212
									7.5	649		749		850		950		1051		1151		1252		1352		1453		1554		1654		1755		1855		1956		2056		2157
									12	566		667		767		869		968		1069		1169		1270		1370		1471		1571		1672		1772		1873		1973		2074
	0.26	0.19	0.16	0.12	0,09	0.08	0.05	85	7.5	722		836		949		1063		1176		1290		1403		1517		1630		1744		1857		1971		2084		2198		2311		2425
	0.21	0.15	0.14	0.10	0,09	0.07	0.04	90	5	890		1017		1144		1271		1398		1526		1653		1780		1908		2035		2162		2289		2416		2544		2671		2798
									7.5	816		944		1071		1198		1325		1453		1580		1707		1834		1962		2089		2216		2343		2471		2598		2725
									12	717		844		971		1098		1225		1353		1480		1607		1734		1861		1988		2116		2243		2370		2497		2624
	0.18	0.13	0,11	0,09	0.07	0.06	/	100	5	1106		1264		1420		1578		1735		1892		2049		2206		2363		2520		2677		2835		2991		3148		3306		3463
									7.5	1020		1177		1334		1491		1648		1806		1963		2120		2277		2434		2591		2748		2905		3062		3219		3376
									12	785		942		1099		1256		1414		1571		1728		1885		2042		2199		2356		2513		2670		2827		2984		3141
	0.16	0.12	0,09	0,07	0.06	0.05	/	110	5	1338		1528		1718		1908		2098		2238		2478		2669		2889		3049		3239		3429		3619		3809		3999		4189
									7.5	1237		1427		1617		1807		1997		2188		2377		2568		2758		2948		3138		3328		3518		3708		3898		4088
									12	1054		1244		1434		1624		1814		2004		2194		2384		2574		2764		2954		3144		3334		3524		3714		3904

TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC.= kg)

	MONO-PHASE 230V 60HZ MOTOR POWER H.P. (Kw)					
18	2 (1.5)	2.4 (1.8)	3.6 (2.6)			
27	2 (1.5)	2.4 (1.8)	3.6 (2.6)	5 (3.7)		
36	3.6 (2.6)	5 (3.7)	6 (4.4)			
42	3.6 (2.6)	5 (3.7)	6 (4.4)	8 (6)		
54	5 (3.7)	6 (4.4)	8 (6)	/		
66	5 (3.7)	6 (4.4)	8 (6)	10 (7.4)	/	

	TREE-PHASE 380V 60HZ MOTOR POWER H.P. (Kw)					
18	3 (2.2)					
27	3 (2.2)	5 (3.6)				
36	3 (2.2)	5 (3.6)				
42	3 (2.2)	5 (3.6)	7.2 (5.3)			
54	5 (3.6)	7.2 (5.3)	/			
66	SEE DRAWING 9017-60Hz					
90	SEE DRAWING 9017-60Hz					

NOTE:

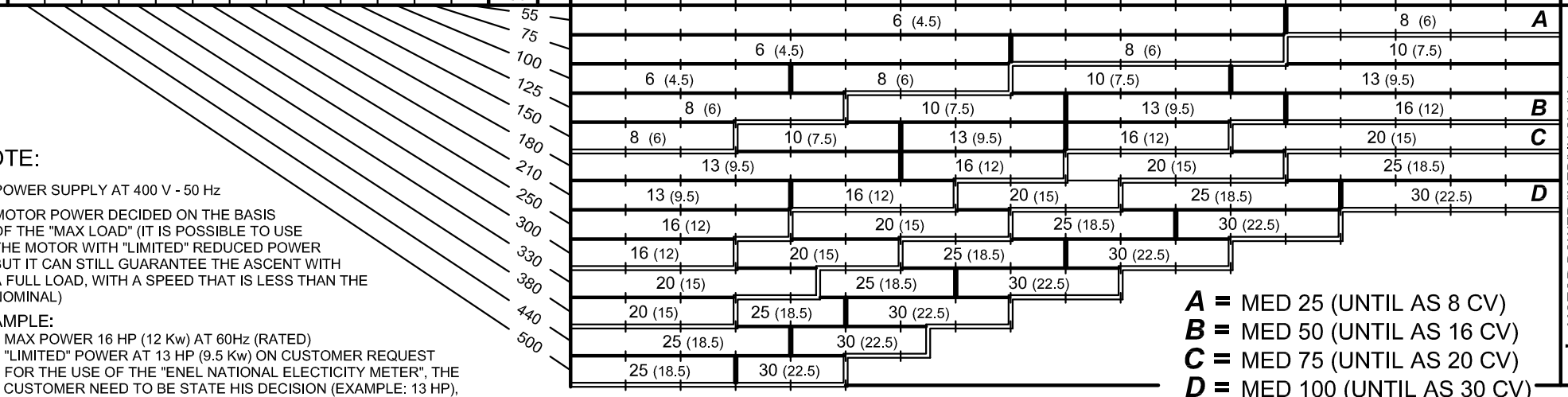
- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

* VALUES REFER TO THE ACTUAL CAPACITY OF THE PUMPS WITH MOTOR 60 Hz

** SIZE OF THE PUMP AT 50 Hz

UT			TABLE TO DETERMINE THE RATES OF PRESSURE-SPEED - PUMP- MOTOR (60Hz) RELATING TO ROD Ø AND LOAD	DATE 06/19
				DRW. N° 9017/2-60

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)														RAM		STATIC PRESSURE IN BARS (TOTAL LOAD (USEFUL LOAD + CABIN LOAD + CAR-FRAME + ACCESSORY = kg))																					
PUMP L/1'																12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46
500	440	380	330	300	250	210	180	150	125	100	75	55	Ød	e																																			
									0.71	0.57	0.42	0.30	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240																			
														7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216																			
								0.76	0.61	0.52	0.42	0.31	0.22	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689																			
														7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657																			
						0.80	0.67	0.58	0.47	0.40	0.31	0.25	0.17	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212																			
														7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157																			
														12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074																			
						0.73	0.61	0.52	0.44	0.36	0.29	0.22	0.16	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425																			
														5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798																			
				0.82	0.75	0.65	0.53	0.46	0.37	0.31	0.26	0.18	0.13	90	7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725																			
														12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624																			
														5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463																			
	0.93	0.77	0.67	0.61	0.52	0.43	0.37	0.31	0.26	0.20	0.15	0.11	100	7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376																			
														12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141																			
														5	960	1148	1338	1528	1718	1908	2098	2238	2478	2669	2889	3049	3239	3429	3619	3809	3999	4189																			
0.85	0.77	0.65	0.55	0.50	0.43	0.36	0.31	0.26	0.21	0.17	0.12	0.09	110	7.5	857	1047	1237	1427	1617	1807	1997	2188	2377	2568	2758	2948	3138	3328	3518	3708	3898	4088																			
														12	674	864	1054	1244	1434	1624	1814	2004	2194	2384	2574	2764	2954	3144	3334	3524	3714	3904																			
														5	1156	1383	1609	1835	2061	2287	2513	2740	2966	3192	3418	3645	3871	4097	4323	4549	4775	5002																			
0.73	0.64	0.55	0.47	0.43	0.36	0.31	0.26	0.21	0.18	0.15	0.11	0.08	120	7.5	1046	1272	1498	1724	1951	2177	2403	2629	2856	3082	3308	3534	3760	3986	4213	4439	4665	4891																			
														12	845	1071	1297	1523	1749	1975	2202	2428	2654	2880	3106	3333	3559	3785	4011	4237	4463	4690																			
														5	1358	1624	1890	2155	2420	2686	2952	3217	3482	3748	4013	4279	4544	4810	5073	5341	5606	5871																			
0.62	0.55	0.45	0.39	0.36	0.31	0.26	0.22	0.18	0.15	0.12	0.09	0.06	130	7.5	1216	1482	1747	2013	2278	2544	2809	3075	3340	3605	3871	4137	4402	4668	4933	5198	5464	5729																			
														12	1031	1297	1562	1827	2093	2358	2623	2889	3154	3419	3685	3950	4215	4481	4746	5011	5277	5542																			
														6	1748	2102	2455	2808	3165	3515	3869	4222	4576	4929	5282	5636	5990	6343	6697	7050	7403	7759																			
0.47	0.41	0.35	0.29	0.27	0.23	0.20	0.16	0.13	0.11	0.09	0.06		150	10	1548	1902	2255	2608	2962	3315	3669	4022	4376	4729	5082	5436	5789	6143	6496	6850	7203	7756																			
0.41	0.36	0.31	0.27	0.25	0.21	0.17	0.15	0.12	0.10	0.08			160	10	1800	2200	2601	3004	3406	3808	4210	4612	5015	5417	5819	6221	6623	7025	7427	7830	8232	8634																			
0.32	0.28	0.24	0.22	0.20	0.16	0.13	0.11	0.09	0.07	0.06			180	10	2330	2839	3348	3857	4366	4875	5384	5893	6402	6914	7420	7930	8438	8947	9456	9956	10473	10982																			
0.26	0.23	0.20	0.16	0.15	0.13	0.10	0.09	0.07	0.06				200	10	2960	3588	4216	4845	5473	6102	6730	7358	7986	8615	9243	9871	10500	11128	11756	12385	13013	13641																			
0.18	0.16	0.13	0.12	0.11	0.09	0.07	0.06						238	14	4098	4988	5878	6767	7657	8547	9437	10326	11216	12106	12996	13885	14775	15665	16555	17444	18334	19224																			



NOTE:

- POWER SUPPLY AT 400 V - 50 Hz

* - MOTOR POWER DECIDED ON THE BASIS OF THE "MAX LOAD" (IT IS POSSIBLE TO USE THE MOTOR WITH "LIMITED" REDUCED POWER BUT IT CAN STILL GUARANTEE THE ASCENT WITH A FULL LOAD, WITH A SPEED THAT IS LESS THAN THE NOMINAL)

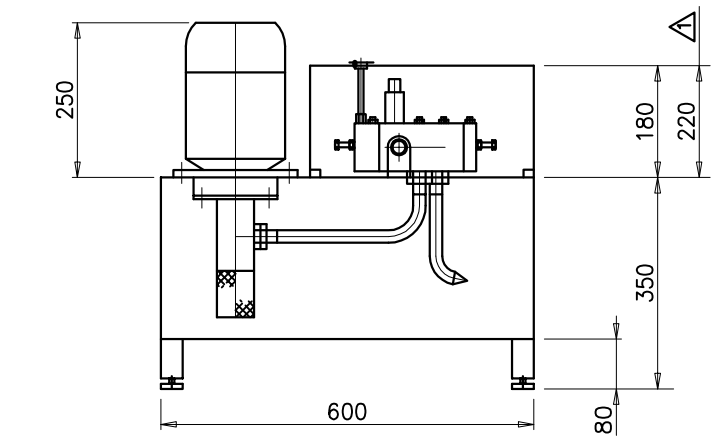
EXAMPLE:

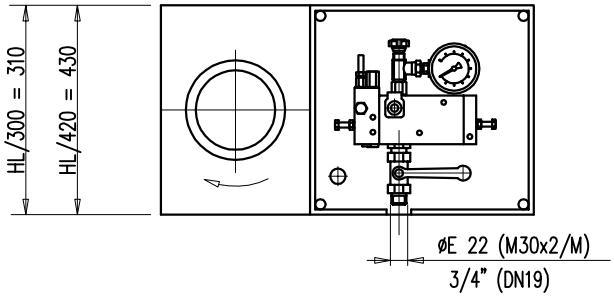
- MAX POWER 16 HP (12 Kw) AT 60Hz (RATED)
- "LIMITED" POWER AT 13 HP (9.5 Kw) ON CUSTOMER REQUEST
- FOR THE USE OF THE "ENEL NATIONAL ELECTICITY METER", THE CUSTOMER NEED TO BE STATE HIS DECISION (EXAMPLE: 13 HP), SEE DWG 9270/MED

- THE WEIGHT EXPRESSED IN THE TABLE WAS CALCULATED TAKING INTO ACCOUNT THE WEIGHT OF THE ROD FOR A MAXIMUM RUN (SEE DWG 9020/... 9030/...)

UT			TABLE TO DETERMINE THE RATES OF PRESSURE - SPEED - PUMP - - MOTOR "MED" , RELATIVE TO ROD DIAMETER AND LOAD FOR "MED" PLANT	DATE 06/10
				DWG No 9017/MED

9017/MED-50-IN





OIL QUANTITY (LITRES)	HL/300	HL/420
MINIMUM LEVEL	4	5
USEFUL OIL	38	55
TOTAL OIL	42	60

OILFREE POWER UNIT WEIGHT	HL/300	HL/420
	50	60

MONO-PHASE MOTOR AIR 230V – 50Hz				
CV	KW	Ø	IN A	IA A
1	0.75	19	6	
1.5	1.1	19	7.6	
2	1.5	19	8.95	⚠2
2.5	1.8	19	12.8	
3	2.2	19	14.7	

TREE-PHASE MOTOR AIR 400-415V – 50Hz (230-240V – 50Hz)				
CV	KW	Ø	IN A	IA A
1	0.75	19	1.9 (3.3)	
1.5	1.1	19	3 (5.2)	
2	1.5	19	3.6 (6.2)	⚠2
3	2.2	19	6.6 (11.4)	

MOD.	COVER
HL300	YES
HL420	YES
HL300AR	NO
HL420AR	NO

⚠1 – REF DIMENSION CAP FOR TWO-SOLENEID VALVE (ON CAN BE SUPPLIED OPTIONALLY)

⚠2 – STARTING CURRENT: ≈ IA = IN x 3

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	PUMP L/1' (Ø 19)				RAM		STATIC PRESSURE IN BARS															TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC. =Kg)
	23	18	12	8	Ød	e	16 (17)	18 (19)	20 (21)	22 (23)	24 (25)	26 (27)	28 (29)	30 (31)	32 (33)	34 (35)	36 (37)	38 (39)	40 (41)	42 (43)	44 (45)	46
	0.19	0.15	0.10	0.06	50	5	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
						7.5	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.13	0.10	0.07	0.04	60	5	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
						7.5	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.09	0.07	0.05	0.03	70	5	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
						7.5	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.07	0.06	0.04	0.02	80	5	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
						7.5	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
						12	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.06	0.05	0.03	0.02	85	7.5	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.06	0.05	0.03	0.02	90	5	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
						7.5	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
						12	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

MOTOR POWER AIR H.P. (Kw)

MONO-PHASE 50Hz 230V ± 5%

8	1 (0.75) Ø19	1.5 (1.1) Ø19		
12	1 (0.75) Ø19	1.5 (1.1) Ø19	2 (1.5) Ø19	
18	1.5 (1.1) Ø19	2 (1.5) Ø19	2.5 (1.8) Ø19	
23	2 (1.5) Ø19	2.5 (1.8) Ø19	3 (2.2) Ø19	

TREE-PHASE 50Hz 230V/400V ± 10%

8	1 (0.75) Ø19	1.5 (1.1) Ø19		
12	1 (0.75) Ø19	1.5 (1.1) Ø19	2 (1.5) Ø19	
18	1 (0.75) Ø19	1.5 (1.1) Ø19	2 (1.5) Ø19	
23	1.5 (1.1) Ø19	2 (1.5) Ø19	3 (2.2) Ø19	

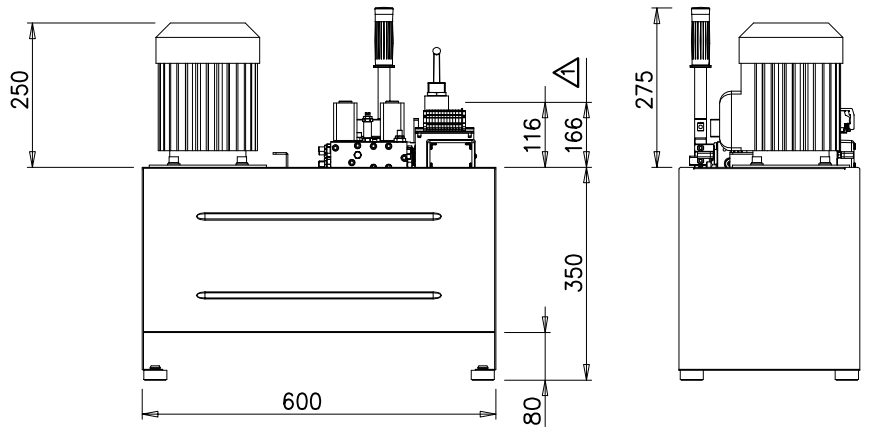
– THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

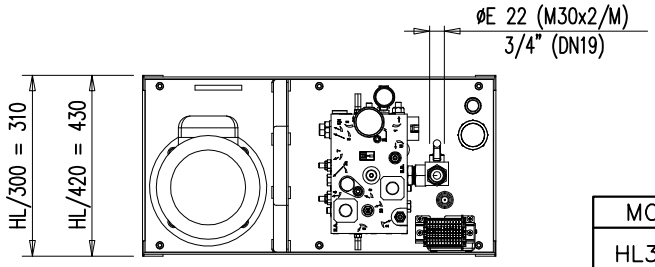
UT

TABLE TO DETERMINE THE VALUES OF
PRESSURE – SPEED – PUMP FLOW – MOTOR IN AIR (50Hz)
FOR HL POWER UNIT, RELATED TO ROD Ø AND LOAD

DATE 10/18

DWG. N. 9018/HL-50Hz





OIL QUANTITY (LITRES)	HL/300-MH2V	HL/420-MH2V	
		8/23 Litres	30 Litres
MINIMUM LEVEL	4	5	8
USEFUL OIL	38	55	52
TOTAL OIL	42	60	60

POWER UNIT WEIGHT WITHOUT OIL	HL/300-MH2V	HL/420-MH2V
	Kg. 45	Kg. 55

MONO-PHASE MOTOR AIR 230V – 50Hz

CV	KW	ø	IN A	IA A
1	0.75	19	6	
1.5	1.1	19	7.6	
2	1.5	19	8.95	⚠2
2.5	1.8	19	12.8	
3	2.2	19	14.7	
4	3	19	19.8	

THREE-PHASE MOTOR AIR 400-415V – 50Hz (230-240V – 50Hz)

CV	KW	ø	IN A	IA A
1	0.75	19	1.9 (3.3)	
1.5	1.1	19	3 (5.2)	
2	1.5	19	3.6 (6.2)	⚠2
3	2.2	19	6.6 (11.4)	
4	3	19	7.4 (12.8)	

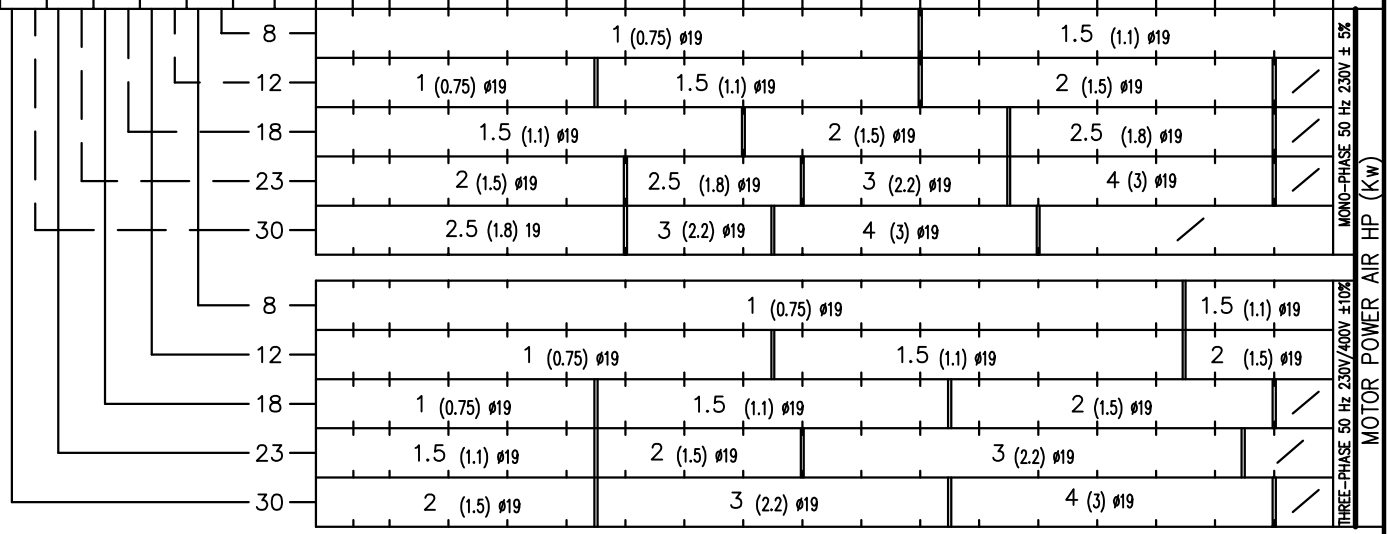
MOD.	COVER
HL300	YES
HL420	YES
HL300AR	NO
HL420AR	NO

⚠1 – ONLY WITH BI-SOLENOID ELECTROVALVES (ON DEMAND))

⚠2 – STARTING CURRENT: ~ IA = IN x 3

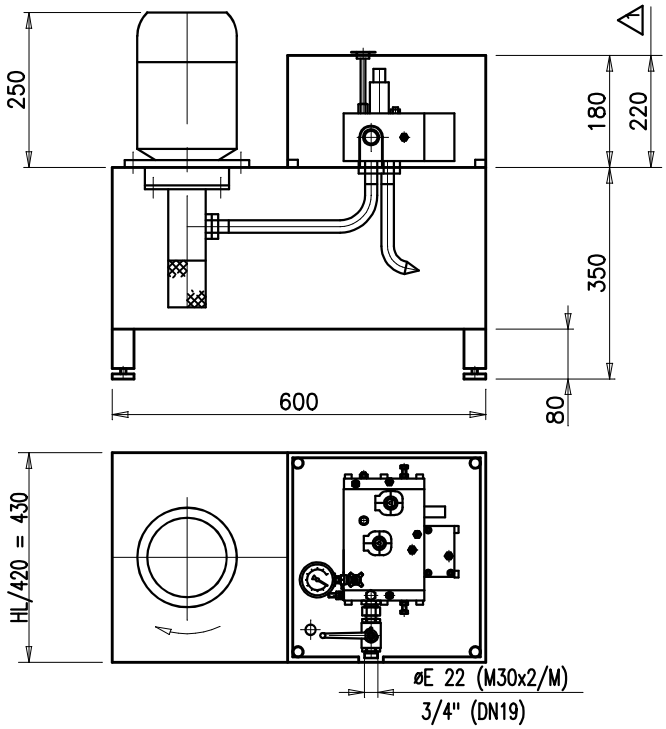
PUMP L/1' (ø 19) 30	(ø 19) 23	18	12	8	RAM ød	e	STATIC PRESSURE IN BAR 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
SPEED OF RAM IN UPWARD DIRECTION M/SEC (M.LOAD)																								
0.25	0.19	0.15	0.10	0.06	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
						7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
0.17	0.13	0.10	0.07	0.04	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
						7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
0.12	0.09	0.07	0.05	0.03	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
						7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
0.10	0.07	0.06	0.04	0.02	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
						7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
						12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
0.08	0.06	0.05	0.03	0.02	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
0.08	0.06	0.05	0.03	0.02	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
						7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
						12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

TOTAL LOAD (P+Q=KG)



– THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THR ROD WHEIGHT FOR MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

UT	TABLE TO CALCULATE THE VALUES OF PRESSURE-SPEED-PUMP FLOW-MOTOR IN AIR (50Hz) FOR HL-MH2V POWER UNIT, RELATED TO ROD ø AND LOAD	DATE 10/18
		DWG. N° 9018/HL-MH2V/50Hz



OIL QUANTITY (LITRES)	HL/420-2V	
	8/23 Litres	30 Litres
MINIMUM LEVEL	5	8
USEFUL OIL	55	52
TOTAL OIL	60	60

POWER UNIT WEIGHT WITHOUT OIL	HL/420-2V Kg. 75

MONO-PHASE MOTOR AIR 230V – 50Hz				
CV	KW	ø	IN A	IA A
1	0.75	19	6	
1.5	1.1	19	7.6	
2	1.5	19	8.95	(2)
2.5	1.8	19	12.8	
3	2.2	19	14.7	
4	3	19	19.8	

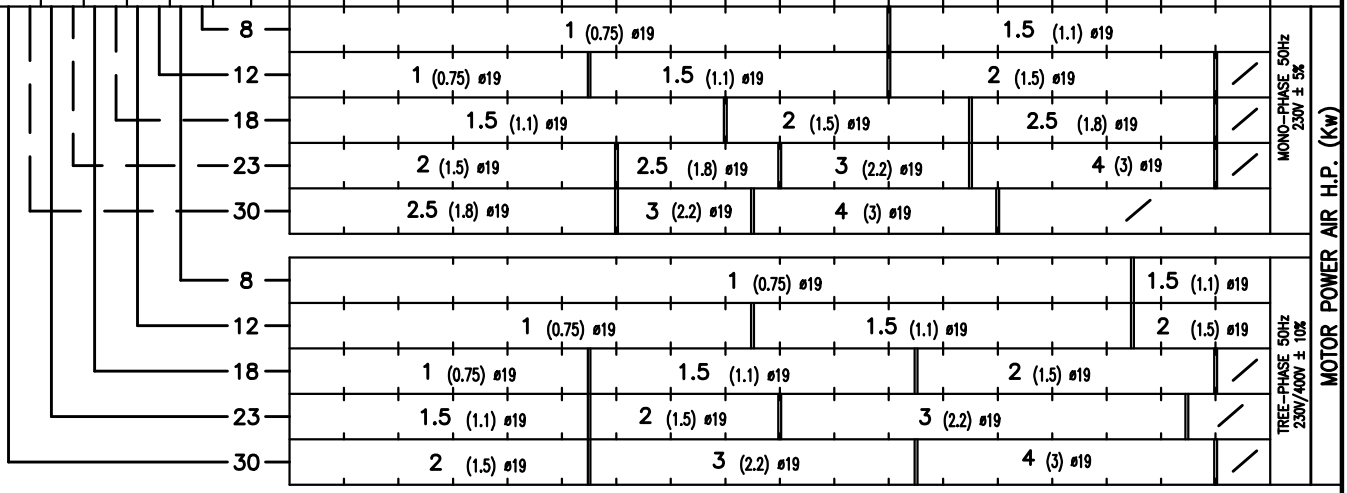
TREE-PHASE MOTOR AIR 400–415V – 50Hz (230–240V – 50Hz)				
CV	KW	ø	IN A	IA A
1	0.75	19	1.9 (3.3)	
1.5	1.1	19	3 (5.2)	
2	1.5	19	3.6 (6.2)	(2)
3	2.2	19	6.6 (11.4)	
4	3	19	7.4 (12.8)	

(1) – ONLY WITH BI-SOLENOID ELECTROVALVES

(2) – STARTING CURRENT: ≈ I A = IN x 3

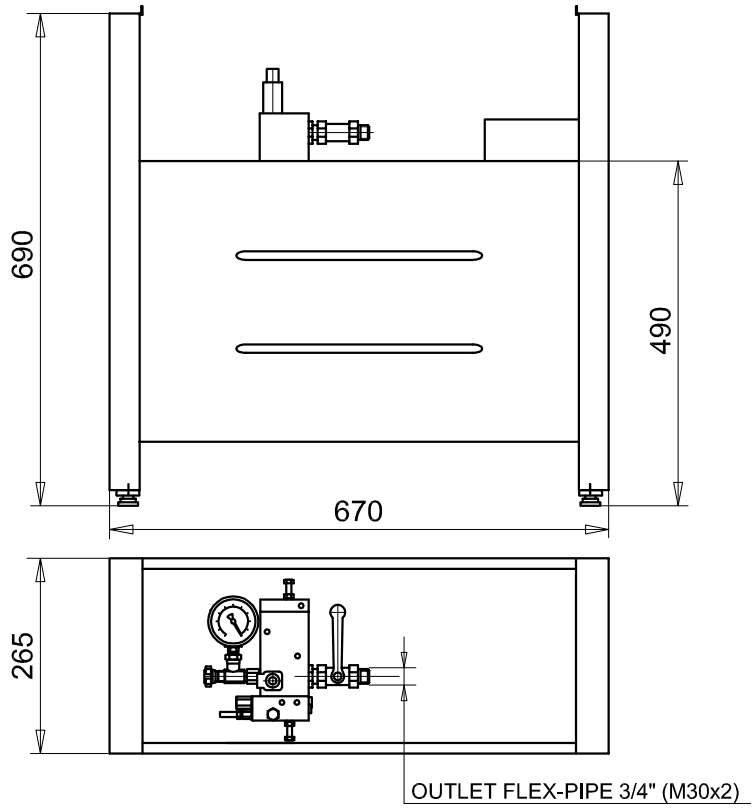
	PUMP L/1' (ø 19)					RAM		STATIC PRESSURE IN BARS																	
	(ø 19)							12	13 14	15 16	17 18	19 20	21 22	23 24	25 26	27 28	29 30	31 32	33 34	35 36	37 38	39 40	41 42	43 44	45 46
	30	23	18	12	8	ød	e																		
SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	0.25	0.19	0.15	0.10	0.06	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
							7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.17	0.13	0.10	0.07	0.04	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
							7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.12	0.09	0.07	0.05	0.03	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
							7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.10	0.07	0.06	0.04	0.02	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
							7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
							12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.08	0.06	0.05	0.03	0.02	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.08	0.06	0.05	0.03	0.02	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
							7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
							12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC. =Kg)



– THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

UT		TABLE TO CALCULATE THE VALUES OF PRESSURE – SPEED – PUMP FLOW – MOTOR IN AIR (50Hz) FOR HL / TWO SPEED POWER UNIT, RELATED TO ROD ø AND LOAD	DATE 09/20
			DWG No 9018/HL-2V/50Hz



OIL QUANTITY	HL/OIL
MINIMUM LEVEL	9 litres
USEFUL OIL	40 litres
TOTAL OIL	49 litres

EMPTY POWER UNIT WEIGHT	HL/OIL
	55 KG

MONO-PHASE MOTOR "OIL" 230V - 50HZ				
CV	kW	Ø	I_N A	I_A A
1	0.75	14	5.3	
1.5	1.1	14	8.3	
2	1.5	14	11	(2)
2.5	1.8	14	12.8	
3	2.2	14	15	

THREE-PHASE MOTOR "OIL" 400V - 50HZ (230V - 50HZ)				
CV	kW	Ø	I_N A	I_A A
1	0.75	14	1.8 (3.2)	
1.5	1.1	14	2.4 (4.2)	
2	1.5	14	4 (7)	(2)
3	2.2	14	6 (10.3)	

(2) – STARTING CURRENT: $\sim I_A = I_N \times 3$

SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	PUMP "SP" L/1' (Ø 14)				RAM		STATIC PRESSURE IN BAR															TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC. = KG)
	23	18	12	8	Ød	e	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
	0.19	0.15	0.10	0.06	50	5	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
						7.5	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.13	0.10	0.07	0.04	60	5	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
						7.5	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.09	0.07	0.05	0.03	70	5	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
						7.5	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.07	0.06	0.04	0.02	80	5	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
						7.5	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
						12	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.06	0.05	0.03	0.02	85	7.5	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.06	0.05	0.03	0.02	90	5	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
						7.5	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
						12	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

MOTOR POWER "OIL" IN CV (kW)

MONO-PHASE 50HZ 230V ± 5%

8	1 (0.75) Ø14	1.5 (1.1) Ø14		
12	1 (0.75) Ø14	1.5 (1.1) Ø14	2 (1.5) Ø14	
18	1.5 (1.1) Ø14	2 (1.5) Ø14	2.5 (1.8) Ø14	
23	2 (1.5) Ø14	2.5 (1.8)Ø14	3 (2.2) Ø14	

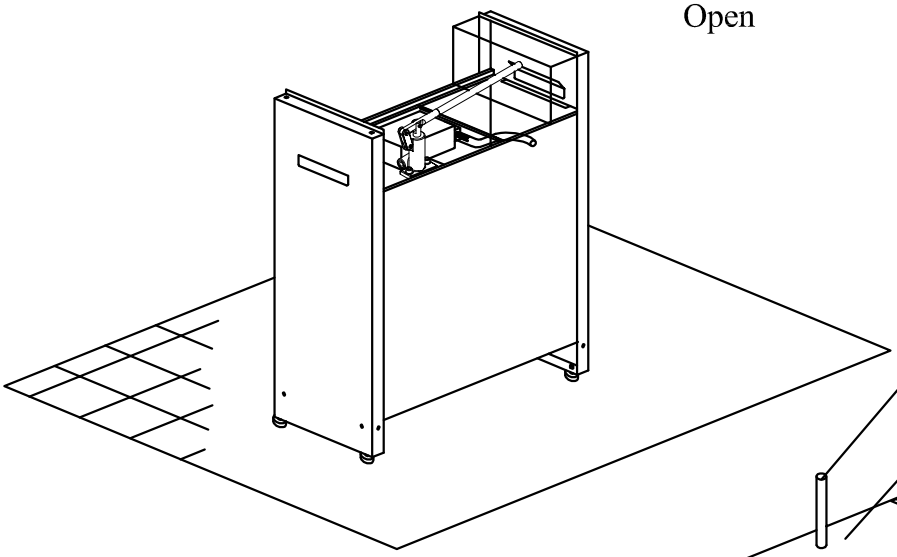
TREE-PHASE 50HZ 230V/400V ± 10%

8	1 (0.75) Ø14	1.5 (1.1) Ø14		
12	1 (0.75) Ø14	1.5 (1.1) Ø14	2 (1.5) Ø14	
18	1 (0.75) Ø14	1.5 (1.1) Ø14	2 (1.5) Ø14	
23	1.5 (1.1) Ø14	2 (1.5) Ø14	3 (2.2) Ø14	

- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

UT	TABLE TO DETERMINE THE VALUES OF PRESSURE - SPEED - PUMP FLOW - MOTOR IN OIL (50Hz) FOR HL/OIL-265 POWER UNIT, RELATED TO ROD Ø AND LOAD	DATE 12/15
		DWG Nr. 9018/HL-OIL-265

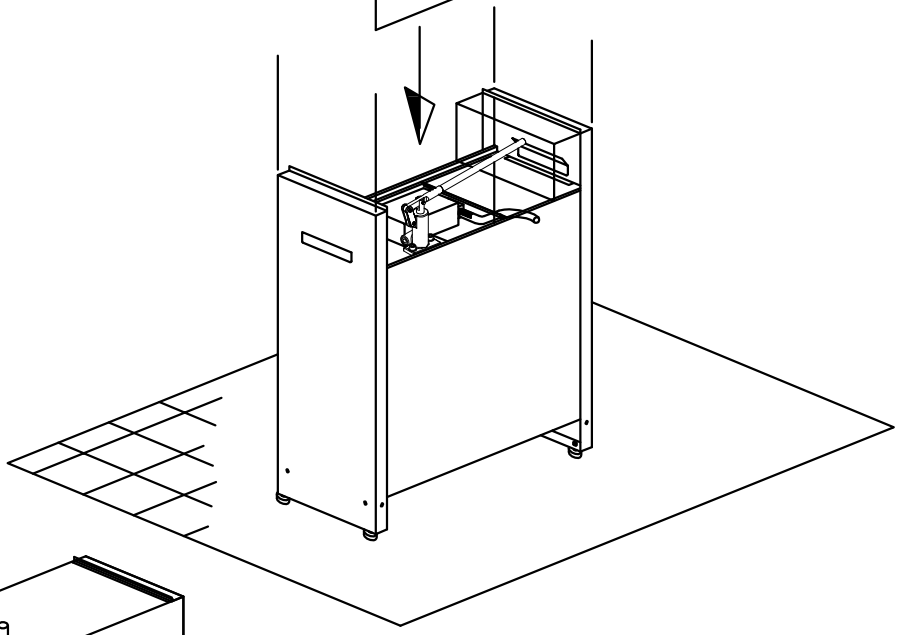
1) - Power Unit HL/OIL-265-AR (HL/OIL-265-2V-AR)
Open

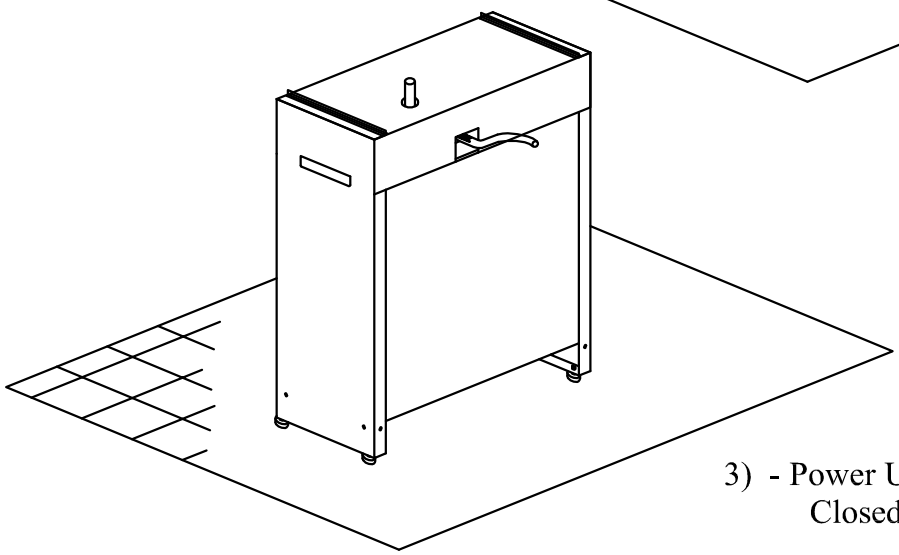


- Item 0575/5

- Item 0948/HL-OIL-CAP

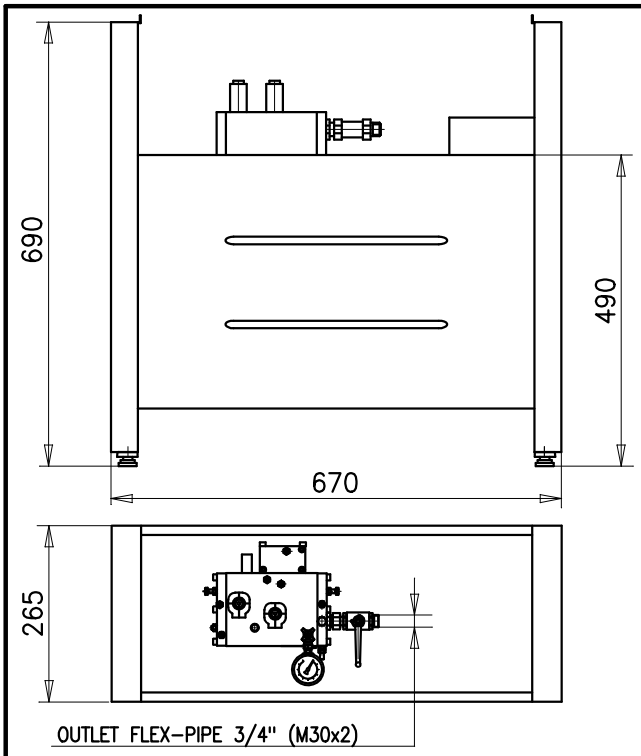
2) - Top plate assembling





3) - Power Unit HL/OIL-265 (HL/OIL-265-2V)
Closed

UT	POWER UNIT HL/OIL-265 - HL/OIL-265-2V	DATA 01/16 DIS. N° MONT-01/0948-HL-OIL-AR-CLOSED



OIL QUANTITY	HL/OIL2V
MINIMUM LEVEL	9 litres
USEFUL OIL	40 litres
TOTAL OIL	49 litres

EMPTY POWER UNIT WEIGHT	HL/OIL2V 85 KG

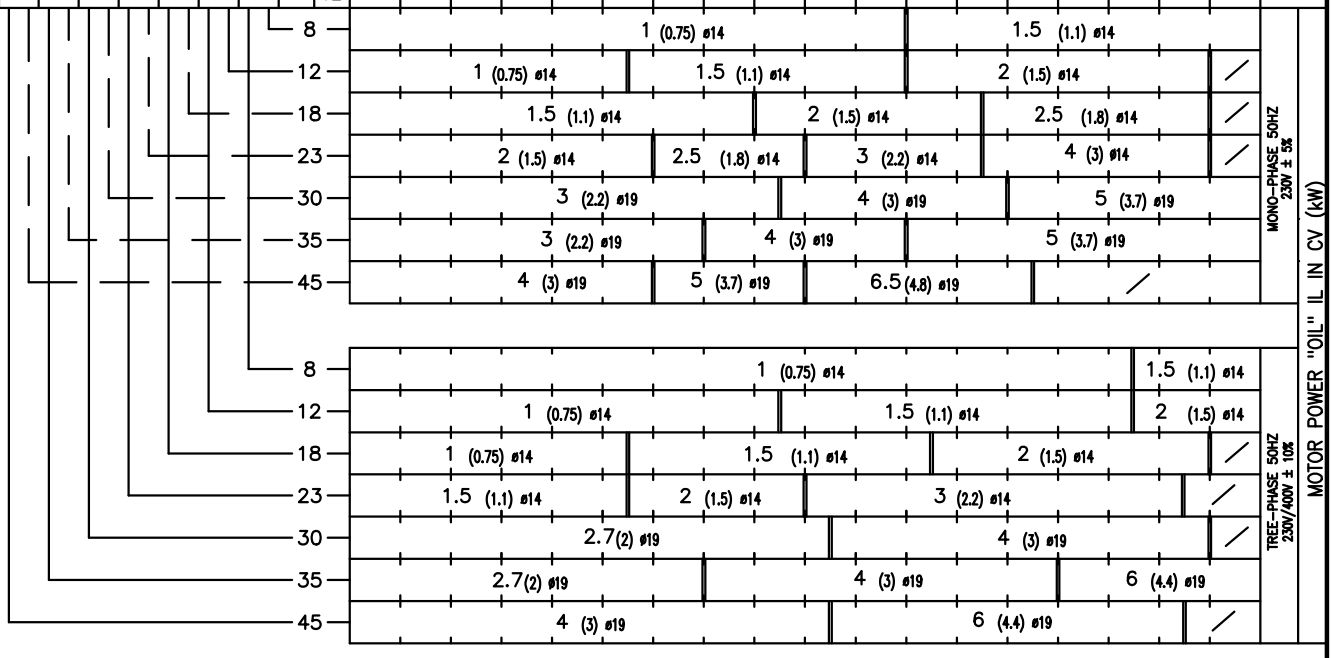
MONO PHASE MOTOR "OIL" 230V-50HZ				
CV	kW	ø	IN A	IA A
1	0.75	14	5.3	
1.5	1.1	14	8.3	
2	1.5	14	11	
2.5	1.8	14/19	12.8	
3	2.2	14/19	15	(2)
4	3.0	14/19	17.5	
5	3.7	19	22.5	
6.5	4.8	19	31	

THREE-PHASE MOTOR "OIL" 400V - 50HZ (230V - 50HZ)				
CV	kW	ø	IN A	IA A
1	0.75	14	1.8 (3.2)	
1.5	1.1	14	2.4 (4.2)	
2	1.5	14	4 (7)	(2)
3	2.2	14/19	6 (10.3)	
4	3.0	19	7.4 (12.9)	
6	4.4	19	10.4 (12.9)	

(2) - STARTING CURRENT: ~IA = IN x 3

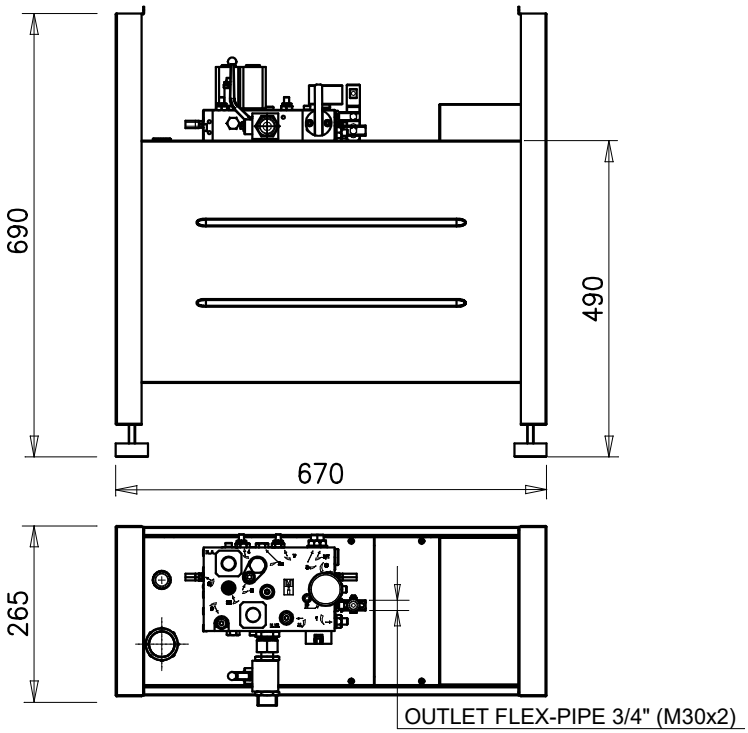
SPEED OF RAM IN UPWARD DIRECTION M/SEC (AVERAGE LOAD)	PUMP "SP" L/1' (ø 19) 45	35	30	(ø 14) 23	18	12	8	RAM ød	e	STATIC PRESSURE BAR 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
	0.36	0.30	0.25	0.19	0.15	0.10	0.06	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
									7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.26	0.20	0.17	0.13	0.10	0.07	0.04	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
									7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.19	0.15	0.12	0.09	0.07	0.05	0.03	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
									7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.14	0.11	0.10	0.07	0.06	0.04	0.02	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
									7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
									12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.13	0.10	0.08	0.06	0.05	0.03	0.02	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.11	0.09	0.08	0.06	0.05	0.03	0.02	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
									7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
									12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

TOTAL LOAD (USEFUL LOAD+CAR+CAR-FRAME+ACC.= KG)



- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR A MAXIMUM STROKE (SEE DWG. 9020/... 9030/...)

UT		TABLE TO DETERMINE THE VALUES OF PRESSURE - SPEED - PUMP FLOW - MOTOR IN OIL (50HZ) FOR HL/OIL-265-2V POWER UNIT, RELATED TO ROD Ø AND LOAD	DATE 09/20
			DWG.Nr. 9018/HL-OIL-265-2V



OIL QUANTITY	HL/OILMH2V
MINIMUM LEVEL	9 litres
USEFUL OIL	40 litres
TOTAL OIL	49 litres

EMPTY POWER UNIT WEIGHT	HL/OIL2V 65 KG

MONO-PHASE MOTOR "OIL" 230V - 50HZ

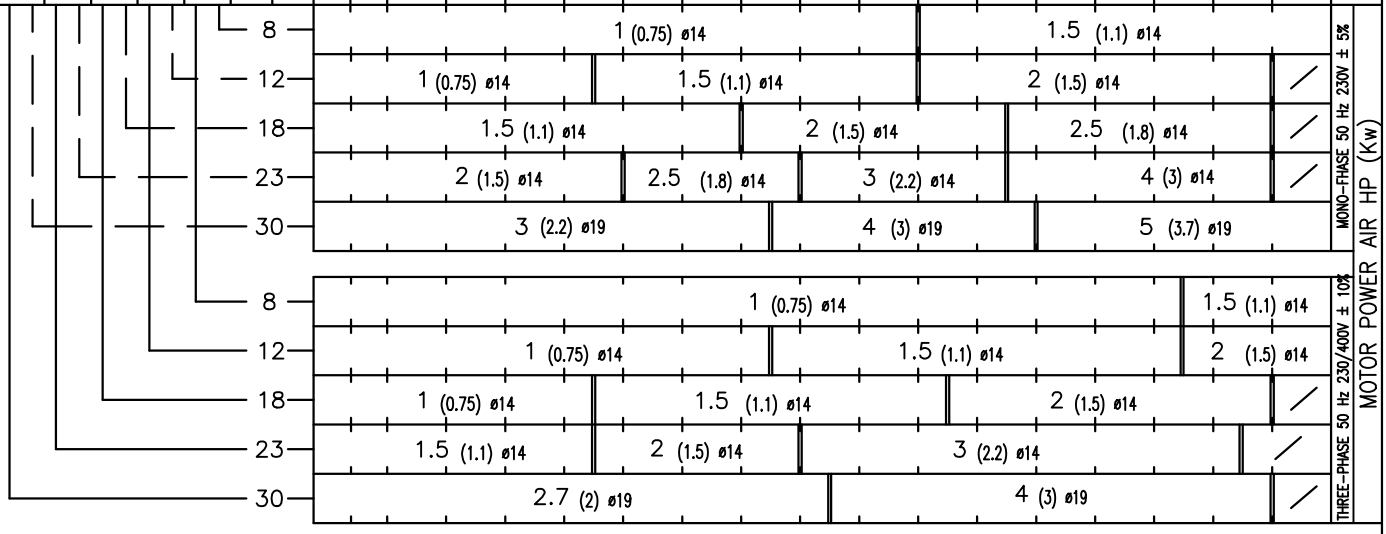
CV	kW	Ø	I_N A	I_A A
1	0.75	14	5.3	
1.5	1.1	14	8.3	
2	1.5	14	11	②
2.5	1.8	14	12.8	
3	2.2	14/19	15	
4	3.0	14/19	17.5	
5	3.7	19	22.4	

THREE-PHASE MOTOR "OIL" 400V - 50HZ (230V - 50HZ)

CV	kW	Ø	I_N A	I_A A
1	0.75	14	1.8 (3.2)	
1.5	1.1	14	2.4 (4.2)	
2	1.5	14	4 (7)	②
2,7	2	19	5.1 (8.9)	
3	2.2	14	6 (10.3)	
4	3.0	19	7.4 (12.9)	

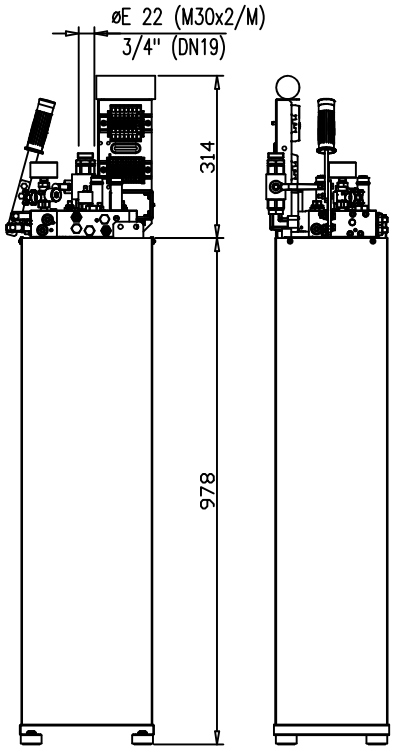
② – STARTING CURRENT: ≈ I_A = I_N x 3

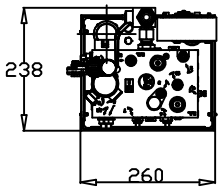
SPEED OF RAM IN UPWARD DIRECTION M/SEC (A. LOAD)	PUMP L/1' (ø 19) 30	(ø 14) 23	18	12	8	RAM ød	e	STATIC PRESSURE IN BARS 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46	TOTAL LOAD (P+Q=KG)
	0.25	0.19	0.15	0.10	0.06	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870	
							7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856	
	0.17	0.13	0.10	0.07	0.04	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240	
							7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216	
	0.12	0.09	0.07	0.05	0.03	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689	
							7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657	
	0.10	0.07	0.06	0.04	0.02	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212	
							7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157	
							12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074	
	0.08	0.06	0.05	0.03	0.02	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425	
	0.08	0.06	0.05	0.03	0.02	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798	
							7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725	
							12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624	



– THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR MAXIMUM STROKE (SEE DWG 9020/... 9030/...)

UT	TABLE TO DETERMINE THE RATES OF PRESSURE - SPEED - PUMP "SP" - MOTOR "OIL" (50HZ) FOR - (HL/OIL-265-2V) - POWER UNIT RELATING TO ROD Ø AND LOAD	DATE 07/20
		DWG Nr. 9018/HL-OIL-265-MH2V





OIL QUANTITY (LITRES)	HL-MTW 8/23 Litres	HL-MTW 30 Litres
MINIMUM LEVEL	5	6
USEFUL OIL	45	44
TOTAL OIL	50	50

POWER UNIT WEIGH WITHOUT OIL	HL-MTW Kg. 40

MONO-PHASE MOTOR AIR 230V – 50Hz

CV	KW	ø	IN A	IA A
1	0.75	19	6	
1.5	1.1	19	7.6	
2	1.5	19	8.95	⚠2
2.5	1.8	19	12.8	
3	2.2	19	14.7	

THREE-PHASE MOTOR AIR 400-415V – 50Hz (230-240V – 50Hz)

CV	KW	ø	IN A	IA A
1	0.75	19	1.9 (3.3)	
1.5	1.1	19	3 (5.2)	
2	1.5	19	3.6 (6.2)	⚠2
3	2.2	19	6.6 (11.4)	
4	3	19	7.4 (12.8)	

⚠2 – STARTING CURRENT: ~ IA = IN x 3

SPEED OF RAM IN UPWARD DIRECTION M/SEC (M. LOAD)	PUMP L/1' (ø 19) 30	(ø 19) 23	18	12	8	PISTONE ød	e	STATIC PRESSURE IN BARS 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
	0.25	0.19	0.15	0.10	0.06	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
							7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.17	0.13	0.10	0.07	0.04	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
							7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.12	0.09	0.07	0.05	0.03	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
							7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.10	0.07	0.06	0.04	0.02	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
							7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
							12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.08	0.06	0.05	0.03	0.02	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.08	0.06	0.05	0.03	0.02	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
							7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
							12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624

TOTAL LOAD (P+Q=KG)

MOTOR POWER AIR HP (Kw)

MONO-PHASE 50 Hz 230V ± 5%

8	1 (0.75) ø19	1.5 (1.1) ø19	
12	1 (0.75) ø19	1.5 (1.1) ø19	2 (1.5) ø19
18	1.5 (1.1) ø19	2 (1.5) ø19	2.5 (1.8) ø19
23	2 (1.5) ø19	2.5 (1.8) ø19	3 (2.2) ø19	4 (3) ø19

THREE-PHASE 50 Hz 230/400V ± 10%

8	1 (0.75) ø19	1.5 (1.1) ø19	
12	1 (0.75) ø19	1.5 (1.1) ø19	2 (1.5) ø19
18	1 (0.75) ø19	1.5 (1.1) ø19	2 (1.5) ø19
23	1.5 (1.1) ø19	2 (1.5) ø19	3 (2.2) ø19
30	2 (1.5) ø19	3 (2.2) ø19	4 (3) ø19

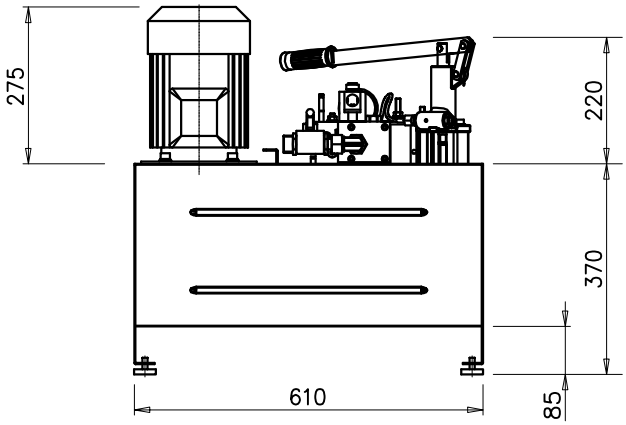
– THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR MAXIMUM STROKE (SEE DWG 9020/... 9030/...)

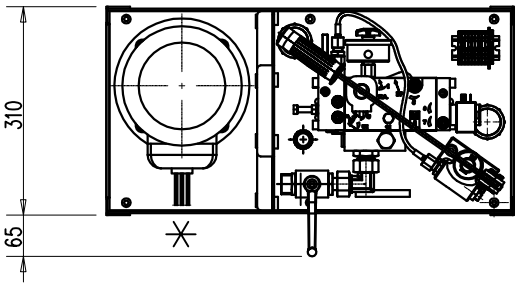
UT

TABLE TO CALCULATE THE VALUES OF PRESSURE – SPEED – PUMP FLOW – MOTOR IN AIR (50Hz) FOR HL-MH2V POWER UNIT, RELATED TO ROD ø AND LOAD

DATA 04/24

DIS. N° 9018/HL-MTW





OIL QUANTITY (LITRE)	HL/HR
MINIMUM LEVEL	4
USEFUL OIL	38
TOTAL OIL	42

EMPTY	HL/HR
POWER UNIT WEIGHT	50

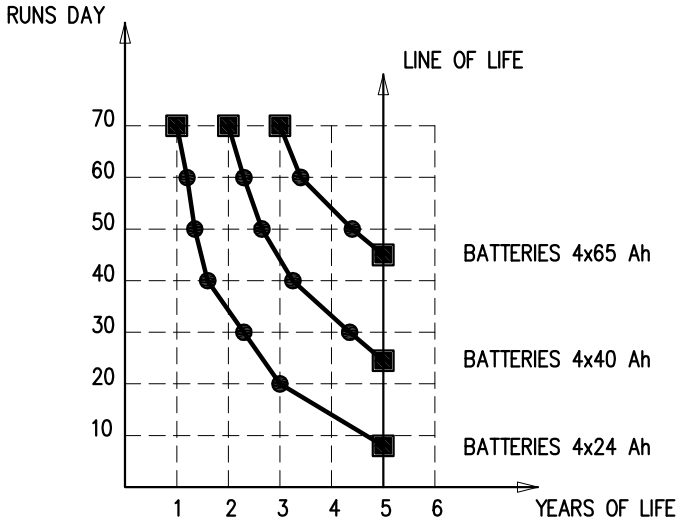
THREE-PHASE MOTOR AIR 48V - 100Hz			
CV	KW	ø	In A
3	2.2	19	50

- POWER UNIT COMBINED WITH INVERTER PLUS BATTERY
MAXIMUM POWER CONSUMPTION IN CHARGE 300 W

BATTERIES 4x24/4x40/4x65 Ah
AUTONOMY 20 RUNS-DAY
MEDIUM TRAVEL 3.5 M
DUTY LOAD 250 Kg

✳ - MOTOR CABLES LENGTH 1 M

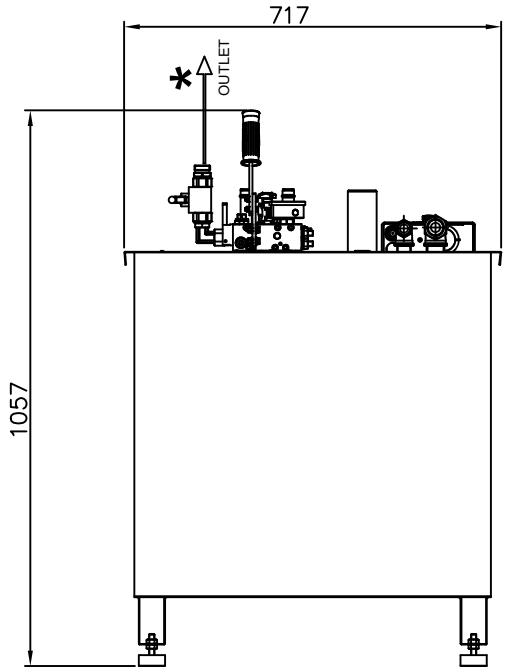
✳✳ - SPECIAL EXECUTION: PUMP 23 L/M

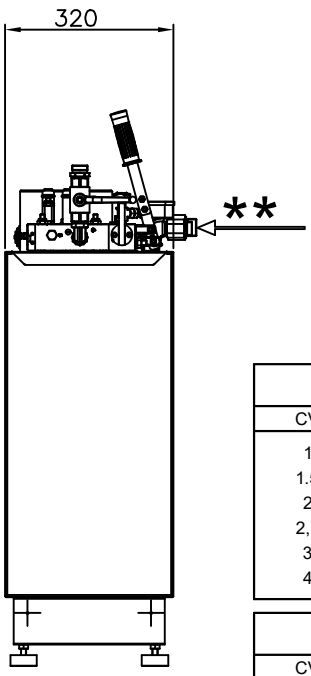


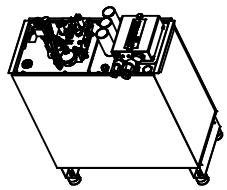
TRACTION	PUMP L/1' (ø 19)	JACK (øbxe)	STATIC PRESSURE (bar)	P+Q * (Kg)	SPEED (m/s)
1:1	18	50x5	35	688	0,15
1:1	18	50x7.5	35	688	0,15
1:1	18	60x5	35	989	0,10
1:1	18	60x7.5	35	989	0,10
2:1	18	70x5	35	673	0,15
2:1	18	70x7.5	35	673	0,15
2:1	18	80x5	35	879	0,12
2:1	18	80x7.5	35	879	0,12

* WEIGHT ROD NOT INCLUDED

UT	TABLE TO DETERMINE THE RATES OF PRESSURE - SPEED - POMPE - MOTOR AIR (100Hz) FOR "HL/HR" POWER UNIT RELATING TO ROD ø AND LOAD	DATE 05/17
		DWG N° 9018/HL-HR







OIL QUANTITY	Litres
MINIMUM LEVEL	45
USEFUL OIL	70
TOTAL OIL	115

POWER UNIT WEIGT WITHOUT OIL	Kg
	115

THREE-PHASE MOTORL 400V - 50HZ (230V - 50HZ)

CV	kW	Ø	IN A	IA A
1	0.75	14	1.8 (3.2)	
1.5	1.1	14	2.4 (4.2)	
2	1.5	14/19	4 (7)	2
2,7	2	14/19	5.1 (8.9)	
3	2.2	14/19	6 (10.3)	
4	3.0	14/19	7.4 (12.9)	

MONO-PHASE MOTOR 230V - 50HZ

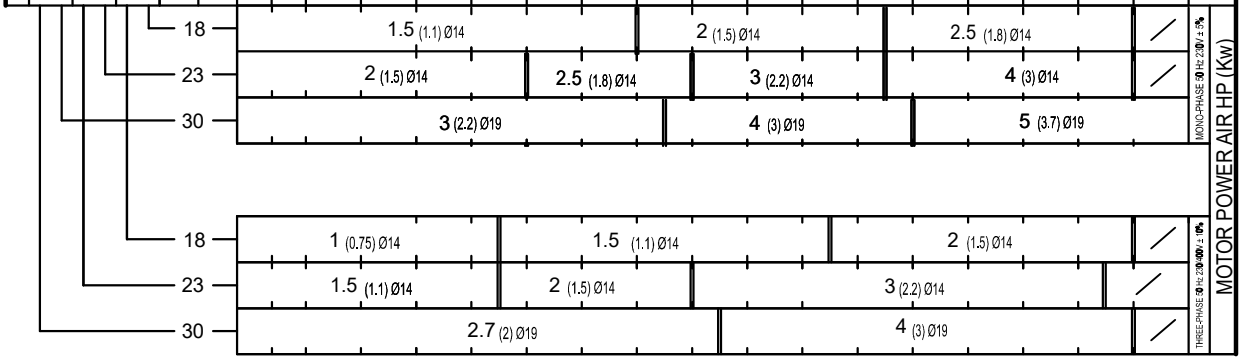
CV	kW	Ø	IN A	IA A
1	0.75	14	5.3	
1.5	1.1	14	8.3	
2	1.5	14	11	
2.5	1.8	14	12.8	2
3	2.2	14/19	15	
4	3.0	14/19	17.5	
5	3.7	19	22.4	

- DISTRIBUTOR: MH-2V
- CONFIGURABLE HORIZONTAL/VERTICAL OUTLET (*) WITH FLEX-PIPE 3/4" (M30x2).
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGE ARRANGEMENT (** OPTIONAL)

2 - STARTING CURRENT: ~I A I X3 N

SPEED OF RAM IN UPWARD DIRECTION M/SEC (A. LOAD)	PUMP L/1' (Ø 19) 30	PUMP L/1' (Ø 14) 23	PUMP L/1' (Ø 14) 18	RAM Ød	RAM e	STATIC PRESSURE IN BARS 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
	0.25	0.19	0.15	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
					7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.17	0.13	0.10	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
					7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.12	0.09	0.07	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
					7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.10	0.07	0.06	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
					7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
					12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.08	0.06	0.05	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.08	0.06	0.05	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
					7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
					12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624
	0.06	0.05	0.04	100	5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463
					7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376
					12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141

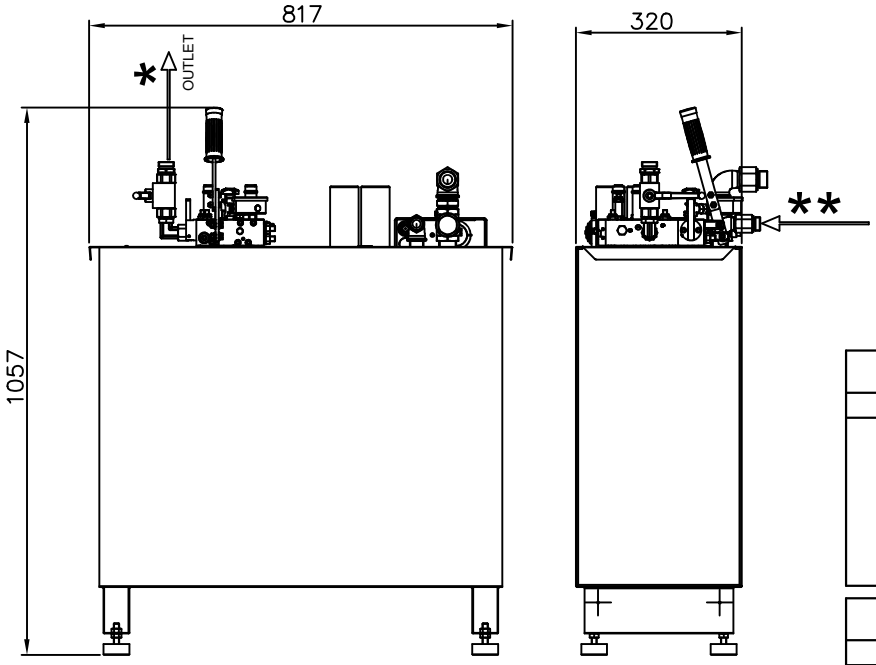
TOTAL LOAD (P+Q=KG)



- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR MAXIMUM STROKE (SEE DWG 9020/... 9030/...)

UT			DATE 07/20
	DATA SHEET POWER UNIT HL320-R-MARK2-MH2V		DWG Nr. 9018/HL320RMK2MH2V

9018/HL320RMK2MH2V-IN



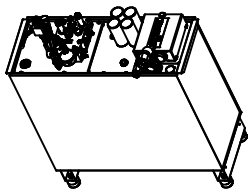
OIL QUANTITY	Litres
MINIMUM LEVEL	50
USEFUL OIL	85
TOTAL OIL	135

POWER UNIT WEIGT WITHOUT OIL	Kg
	117

THREE-PHASE MOTORL 400V - 50HZ (230V - 50HZ)				
CV	kW	Ø	N A	A
1	0.75	14	1.8 (3.2)	2
1.5	1.1	14	2.4 (4.2)	
2	1.5	14/19	4 (7)	
2,7	2	14/19	5.1 (8.9)	
3	2.2	14/19	6 (10.3)	
4	3.0	14/19	7.4 (12.9)	

MONO-PHASE MOTOR 230V - 50HZ				
CV	kW	Ø	N A	A
1	0.75	14	5.3	2
1.5	1.1	14	8.3	
2	1.5	14	11	
2.5	1.8	14	12.8	
3	2.2	14/19	15	
4	3.0	14/19	17.5	
5	3.7	19	22.4	

- DISTRIBUTOR: MH-2V
- CONFIGURABLE HORIZONTAL/VERTICAL OUTLET (*) WITH FLEX-PIPE 3/4" (M30x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGE ARRANGEMENT (** OPTIONAL)



2 - STARTING CURRENT: ~I A I X3 N

SPEED OF RAM IN UPWARD DIRECTION M/SEC (A. LOAD)	PUMP L/1' (Ø 19) 30	(Ø 14) 23	(Ø 14) 18	RAM Ød	RAM e	STATIC PRESSURE IN BARS 12	14	16	18	20	22	24	26	28	30	32	34	36	38	40	42	44	46
	0.25	0.19	0.15	50	5	202	241	281	320	359	398	438	477	516	556	595	634	673	713	752	791	830	870
					7.5	188	227	267	306	345	384	424	463	502	542	581	620	659	699	738	777	816	856
	0.17	0.13	0.10	60	5	280	335	392	450	505	562	618	675	732	788	845	901	958	1015	1071	1128	1184	1240
					7.5	255	312	368	425	481	538	594	651	707	764	820	877	933	990	1046	1103	1160	1216
	0.12	0.09	0.07	70	5	380	458	535	612	688	766	843	920	997	1074	1151	1227	1305	1382	1458	1535	1612	1689
					7.5	348	425	502	579	656	733	810	887	964	1041	1118	1195	1272	1349	1426	1503	1580	1657
	0.10	0.07	0.06	80	5	500	604	704	805	905	1006	1106	1207	1307	1408	1508	1609	1709	1810	1910	2011	2111	2212
					7.5	448	548	649	749	850	950	1051	1151	1252	1352	1453	1554	1654	1755	1855	1956	2056	2157
					12	365	466	566	667	767	869	968	1069	1169	1270	1370	1471	1571	1672	1772	1873	1973	2074
	0.08	0.06	0.05	85	7.5	495	609	722	836	949	1063	1176	1290	1403	1517	1630	1744	1857	1971	2084	2198	2311	2425
	0.08	0.06	0.05	90	5	630	762	890	1017	1144	1271	1398	1526	1653	1780	1908	2035	2162	2289	2416	2544	2671	2798
					7.5	562	689	816	944	1071	1198	1325	1453	1580	1707	1834	1962	2089	2216	2343	2471	2598	2725
					12	462	590	717	844	971	1098	1225	1353	1480	1607	1734	1861	1988	2116	2243	2370	2497	2624
	0.06	0.05	0.04	100	5	790	949	1106	1264	1420	1578	1735	1892	2049	2206	2363	2520	2677	2835	2991	3148	3306	3463
					7.5	706	863	1020	1177	1334	1491	1648	1806	1963	2120	2277	2434	2591	2748	2905	3062	3219	3376
					12	471	628	785	942	1099	1256	1414	1571	1728	1885	2042	2199	2356	2513	2670	2827	2984	3141

TOTAL LOAD (P+Q=KG)

MOTOR POWER AIR HP (Kw)

MONO-PHASE 50 Hz 230 V ± 5%

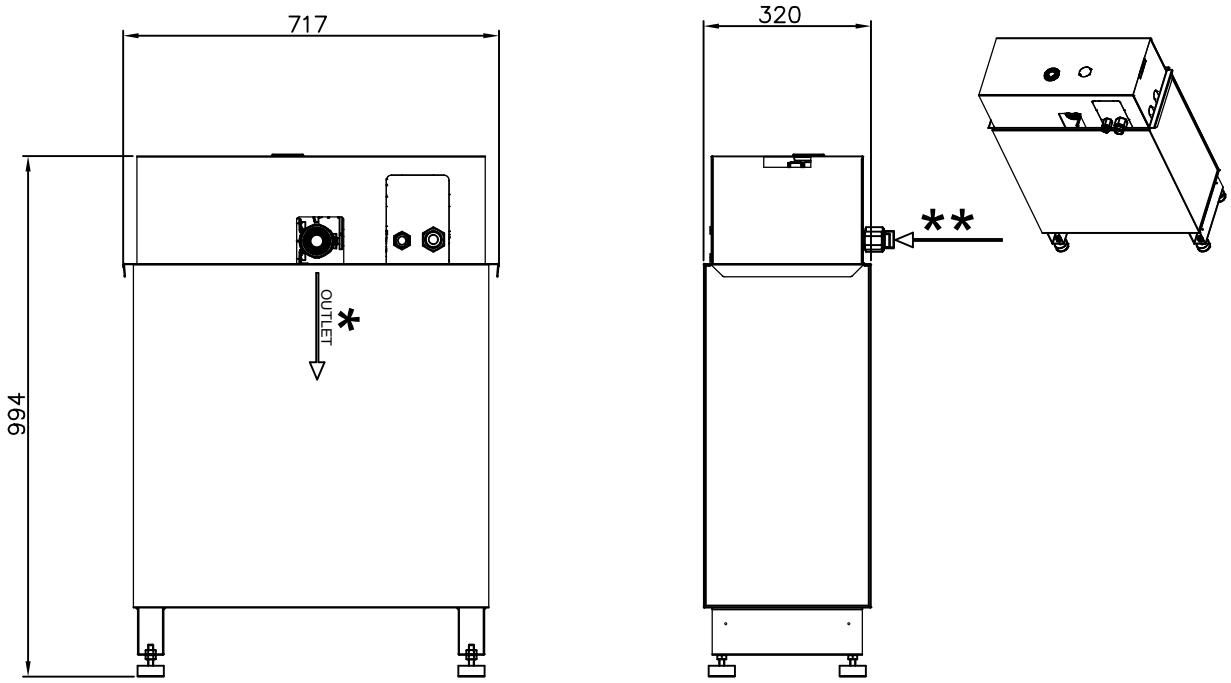
18	1.5 (1.1) Ø14	2 (1.5) Ø14	2.5 (1.8) Ø14
23	2 (1.5) Ø14	2.5 (1.8) Ø14	3 (2.2) Ø14 / 4 (3) Ø14
30	3 (2.2) Ø19	4 (3) Ø19	5 (3.7) Ø19

THREE-PHASE 50 Hz 230 V ± 5% 400 V ± 5%

18	1 (0.75) Ø14	1.5 (1.1) Ø14	2 (1.5) Ø14
23	1.5 (1.1) Ø14	2 (1.5) Ø14	3 (2.2) Ø14
30	2.7 (2) Ø19	4 (3) Ø19	

- THE WEIGHT INDICATED IN THIS TABLE HAS BEEN CALCULATED CONSIDERING THE ROD WEIGHT FOR MAXIMUM STROKE (SEE DWG 9020/... 9030/...)

UT			DATE 07/20
	DATA SHEET POWER UNIT HL320-MARK2-MH2V		DWG Nr. 9018/HL320MK2MH2V



THREE-PHASE MOTOR: From 2.7 up to 13 CV (2 / 9.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/min.
PRESSURE: From 12 up to 45 BAR

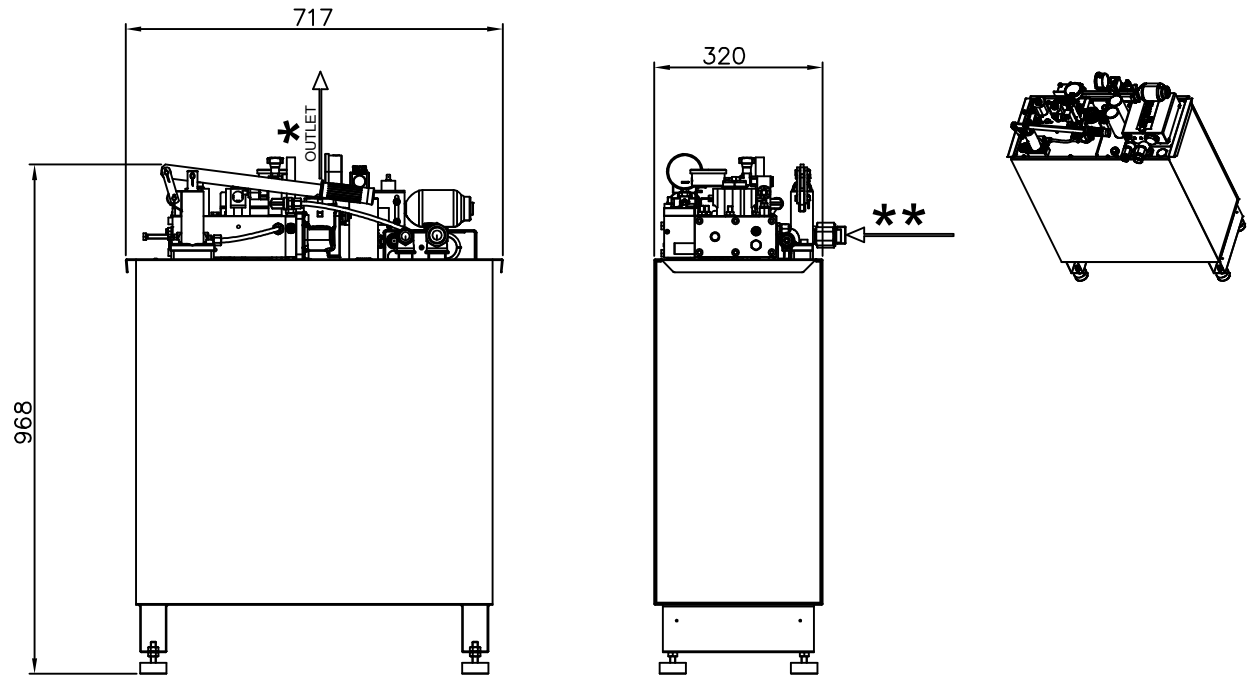
OIL QUANTITY	
MINIMUM LEVEL	45 litres
USEFUL OIL	70 litres
TOTAL OIL	115 litres

POWER UNIT WEIGHT WITHOUT OIL	122 KG

NOTE:

- DISTRIBUTOR: 15-150 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-R-MARK2	DATE 09/22 DWG Nr. 9018/CM320R-MK2



THREE-PHASE MOTOR: From 2.7 up to 13 CV (2 / 9.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/min.
PRESSURE: From 12 up to 45 BAR

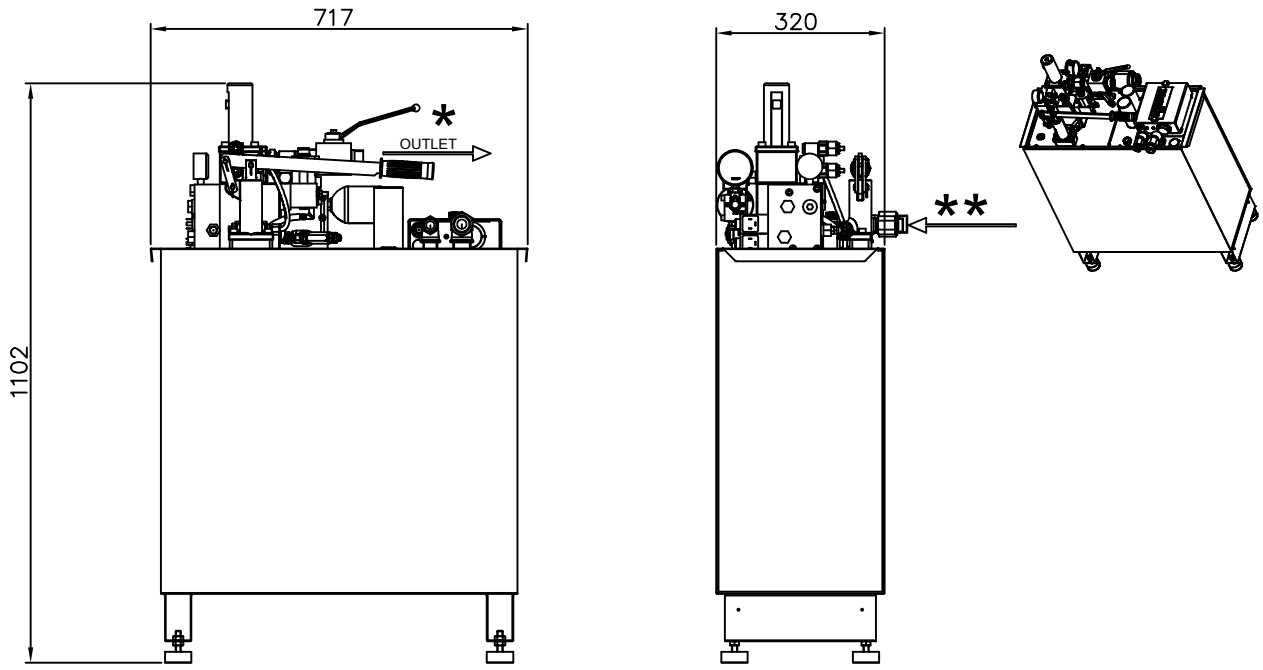
OIL QUANTITY	
MINIMUM LEVEL	45 litres
USEFUL OIL	70 litres
TOTAL OIL	115 litres

POWER UNIT WEIGHT WITHOUT OIL	115 KG

NOTE:

- DISTRIBUTOR: 15-150 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)
- VERTICAL OUTLET STANDARD
- HORIZONTAL OUTLET OPTIONAL

UT			DATA SHEET POWER UNIT CM320-R-MK2-A	DATE 09/24 DWG Nr. 9018/CM320R-MK2-A



THREE-PHASE MOTOR: From 2.7 up to 13 CV (2 / 9.5 kW)
230 V-400 V-415 V ; (50/60 HZ)

MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)

PUMP: From 30 up to 150 L/min.

PRESSURE: From 12 up to 60 BAR

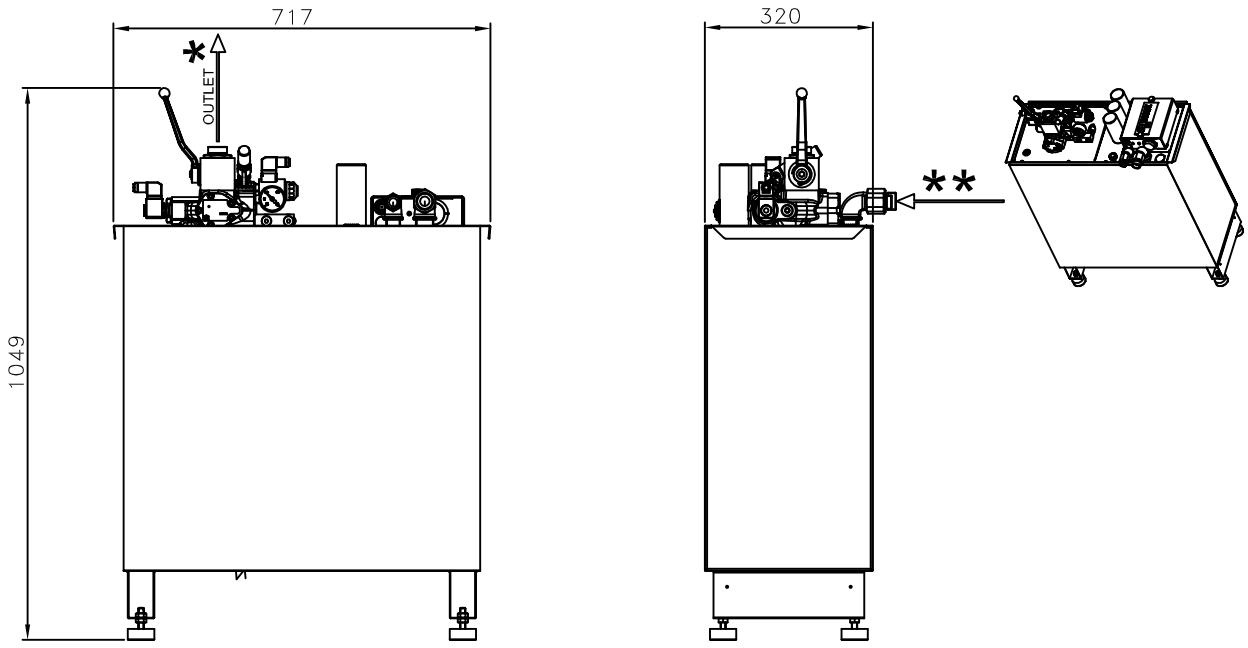
OIL QUANTITY	
MINIMUM LEVEL	45 litres
USEFUL OIL	70 litres
TOTAL OIL	115 litres

POWER UNIT WEIGHT WITHOUT OIL	115 KG

NOTE:

- DISTRIBUTOR: LRV-175
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-R-MARK2-LRV	DATE 10/18 DWG Nr. 9018/CM320RMK2LRV



THREE-PHASE MOTOR: From 2.7 up to 13 CV (2 / 9.5 kW)
230 V-400 V-415 V ; (50/60 HZ)

MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)

PUMP: From 30 up to 150 L/min.

PRESSURE: From 12 up to 60 BAR

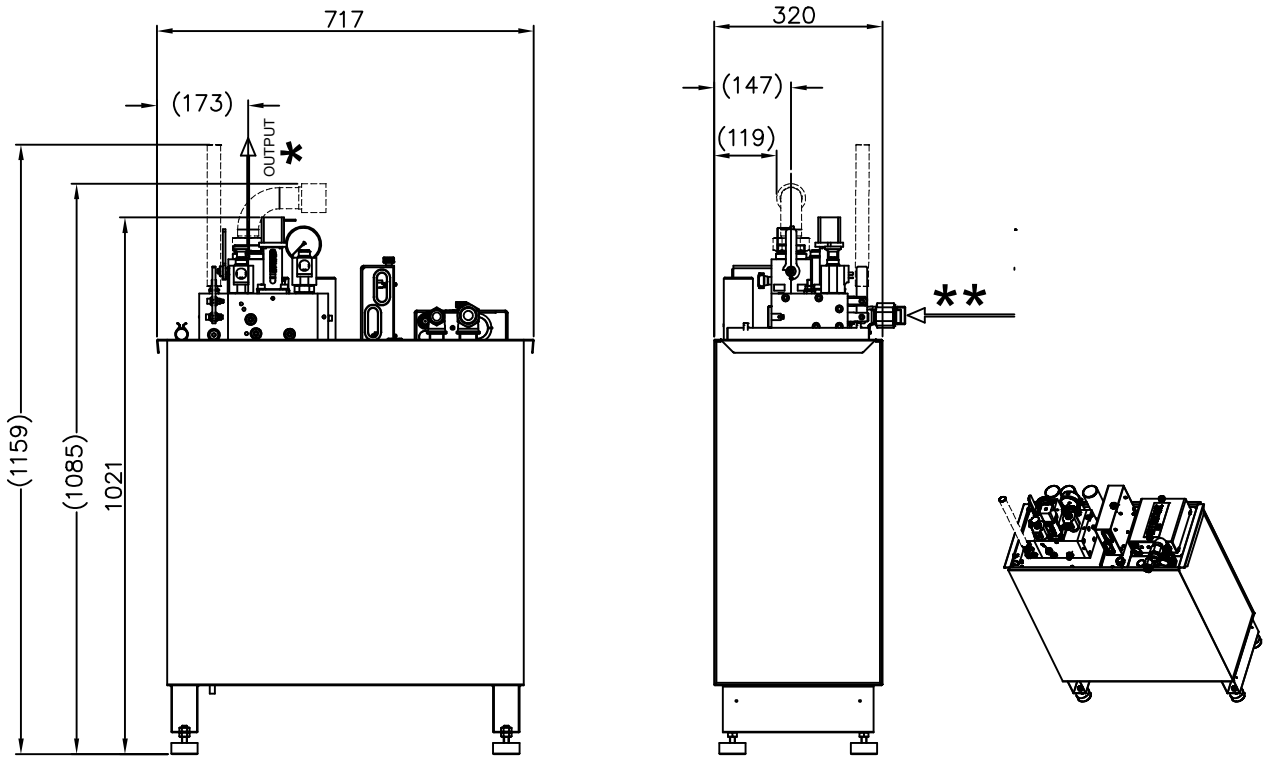
OIL QUANTITY	
MINIMUM LEVEL	45 litres
USEFUL OIL	70 litres
TOTAL OIL	115 litres

POWER UNIT WEIGHT WITHOUT OIL	115 KG

NOTE:

- DISTRIBUTOR:I-VALVE 250/160
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-R-MARK2-IV	DATE 10/18 DWG Nr. 9018/CM320RMK2IV



THREE-PHASE MOTOR: From 2.7 up to 13 CV (2 / 9.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/min.
PRESSURE: From 10 up to 50 BAR

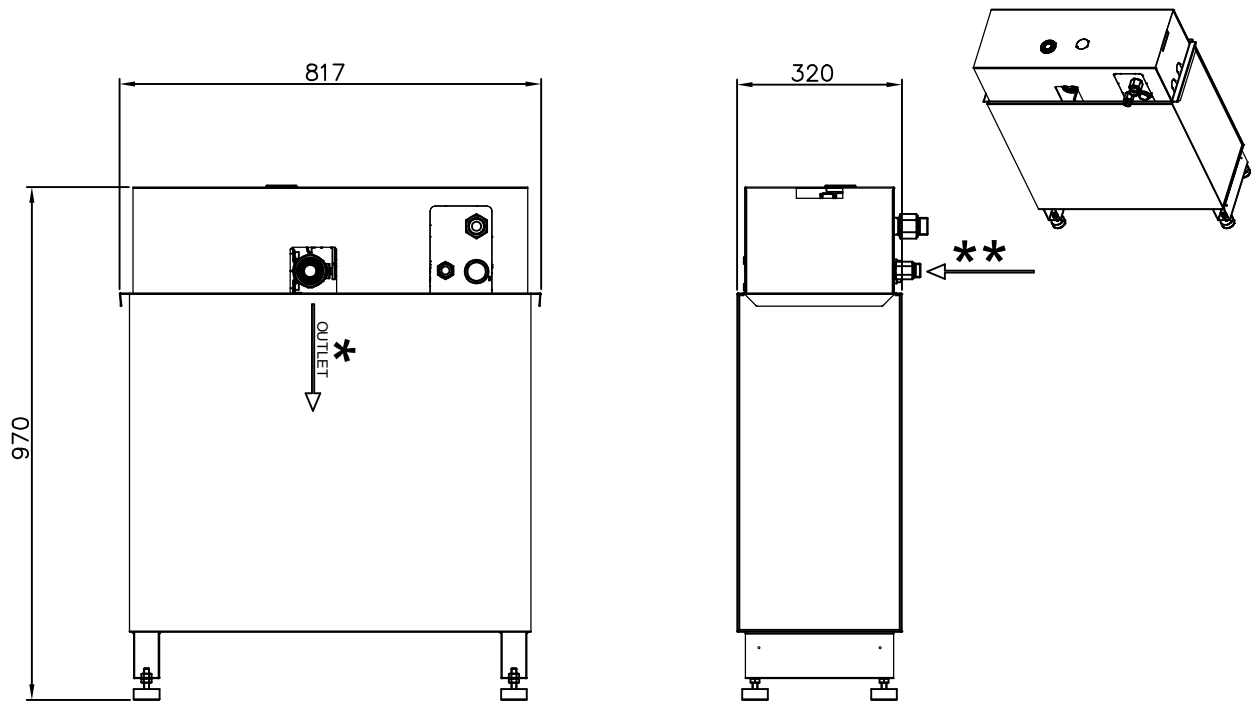
OIL QUANTITY	
MINIMUM LEVEL	45 litres
USEFUL OIL	70 litres
TOTAL OIL	115 litres

POWER UNIT WEIGHT WITHOUT OIL	115 KG

NOTE:

- DISTRIBUTOR:VEM 250
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-R-MARK2-VEM	DATE 09/21 DWG Nr. 9018/CM320RMK2VEM



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/min.
PRESSURE: From 12 up to 45 BAR

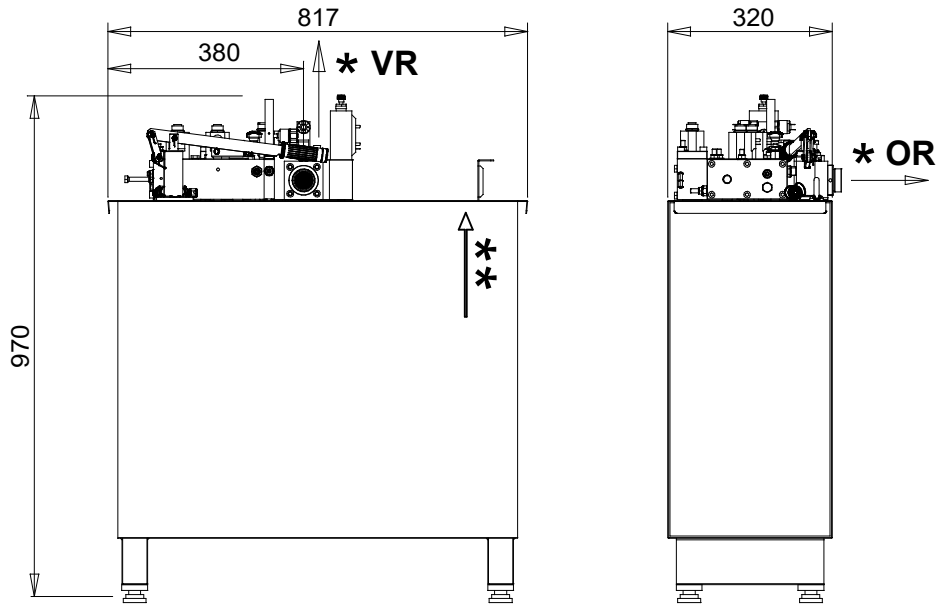
OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

POWER UNIT WEIGHT WITHOUT OIL	125 KG

NOTE:

- DISTRIBUTOR: 15-150 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-MARK2	DATE 09/22 DWG Nr. 9018/CM320-MK2



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V - 400 V - 415 V; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/1'.
PRESSURE: From 12 up to 45 BAR

SPECIAL EXECUTION:

A) PUMP 180 L/1'
B) FLEX-PIPE 1"1/2 (M52x2)
FOR PUMP 180 L/1'

OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

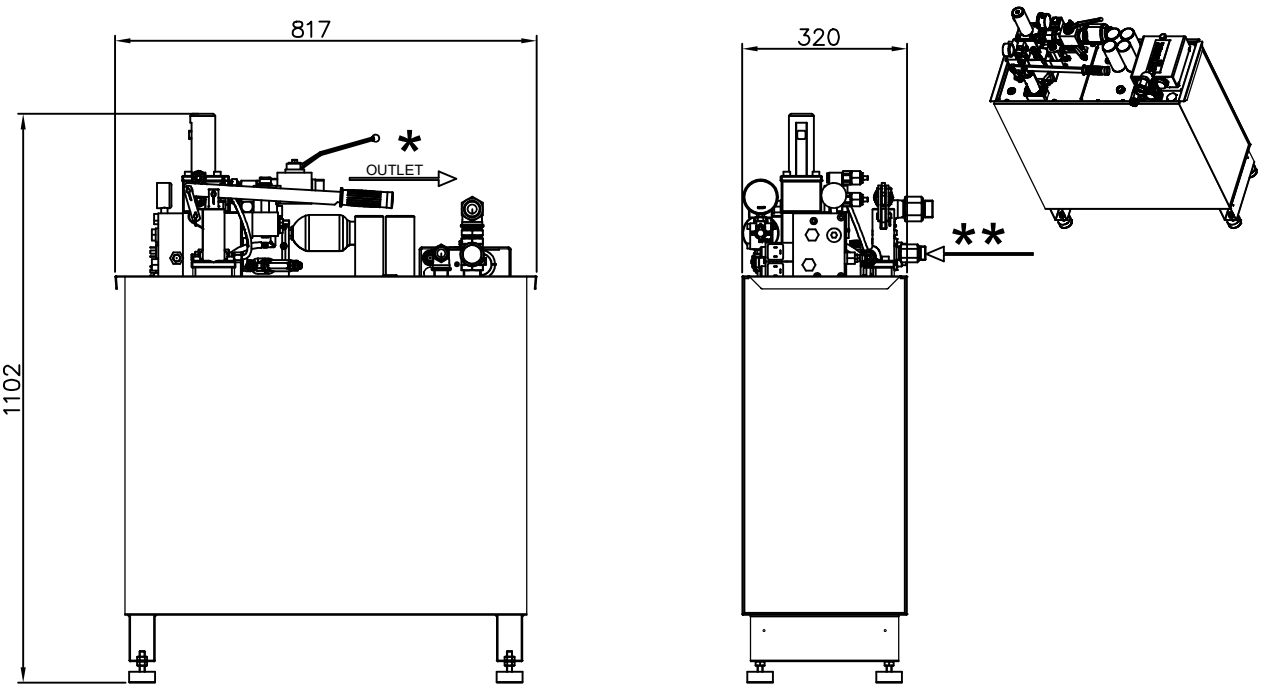
EMPTY POWER UNIT WEIGHT	115 KG

NOTE:

- DISTRIBUTOR: 15-150 L/1'
- REF TABLE # 9017 - 9018 TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2) or 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

OR - HORIZONTAL OUTLET OPTIONAL
VR - VERTICAL OUTLET STANDARD

UT	TECHNIQUE SHEET POWER UNIT: CM-320-MARK2-A	DATE 02/25 DWG N° 9018 CM-320-MK2-A



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V-400 V-415 V ; (50/60 HZ)

MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)

PUMP: From 30 up to 150 L/min.

PRESSURE: From 12 up to 60 BAR

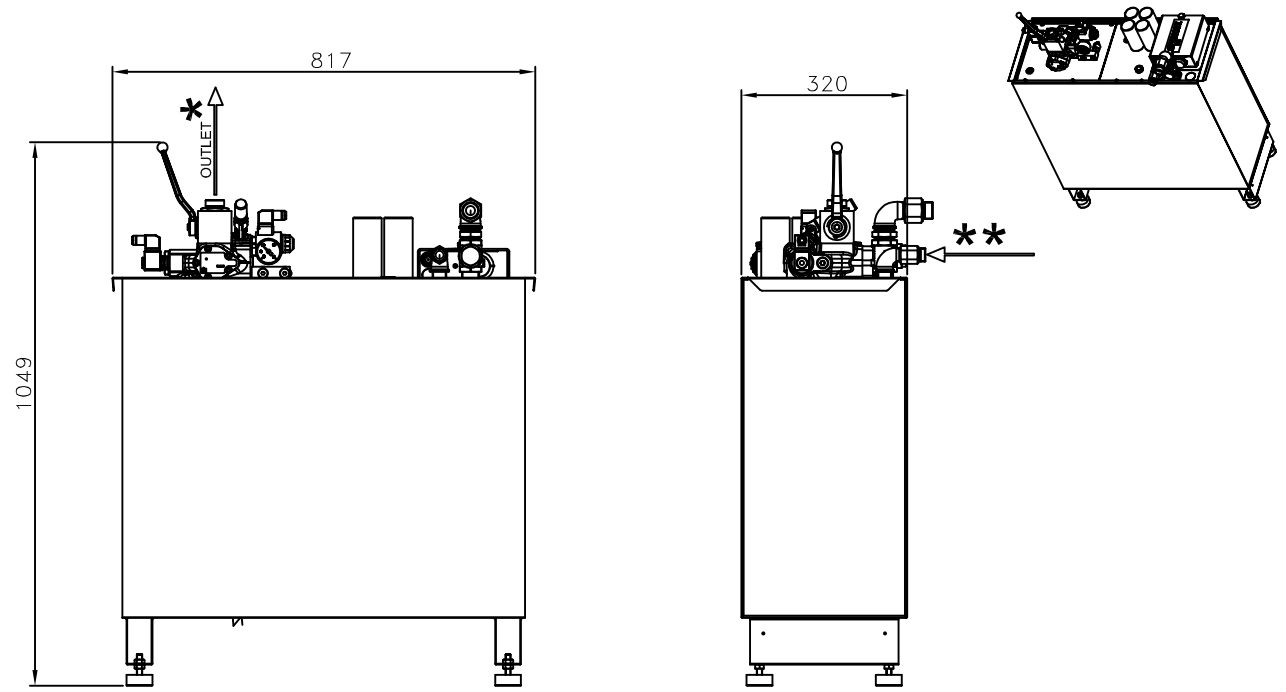
OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

POWER UNIT WEIGHT WITHOUT OIL	117 KG

NOTE:

- DISTRIBUTOR: LRV-175
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-MARK2-LRV	DATE 11/18 DWG Nr. 9018/CM320MK2LRV



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V-400 V-415 V ; (50/60 HZ)

MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)

PUMP: From 30 up to 150 L/min.

PRESSURE: From 12 up to 60 BAR

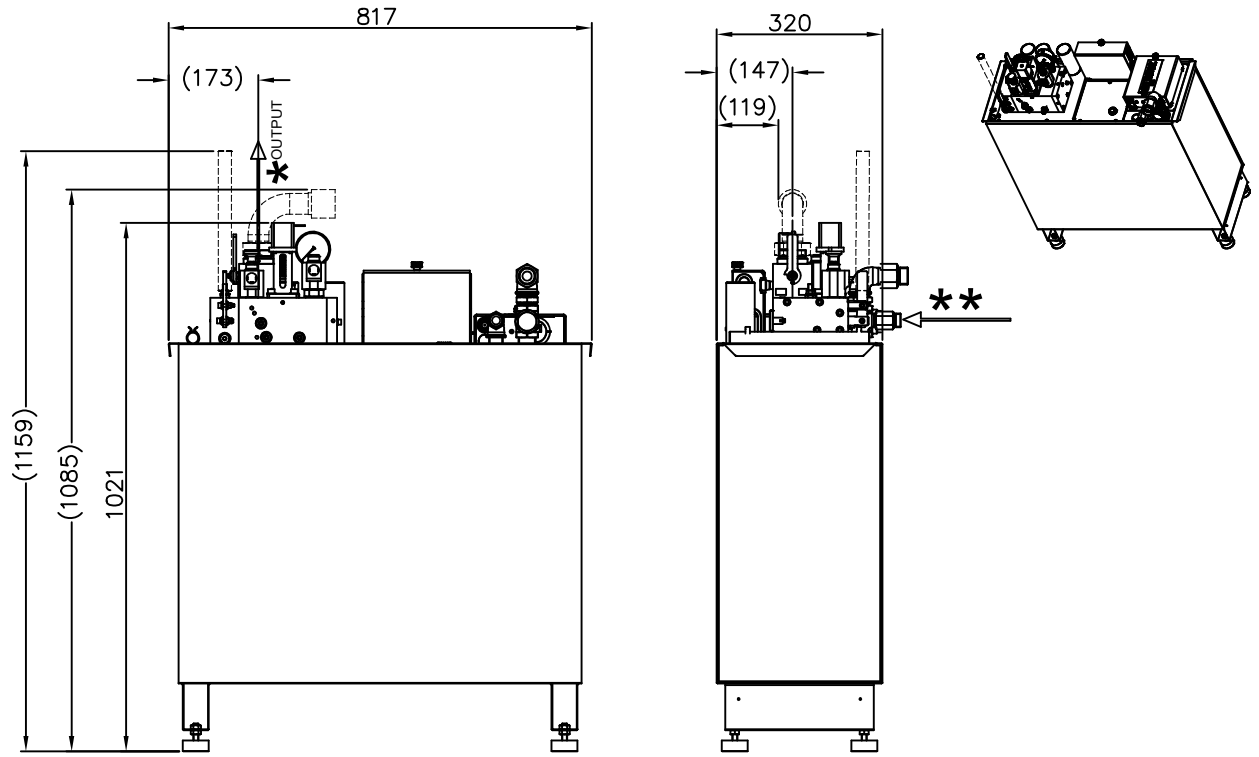
OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

POWER UNIT WEIGHT WITHOUT OIL	117 KG

NOTE:

- DISTRIBUTOR: I-VALVE 250/160
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATA SHEET POWER UNIT CM320-MARK2-IV	DATE 10/18 DWG Nr. 9018/CM320MK2IV



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V-400 V-415 V ; (50/60 HZ)

MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)

PUMP: From 30 up to 150 L/min.

PRESSURE: From 10 up to 50 BAR

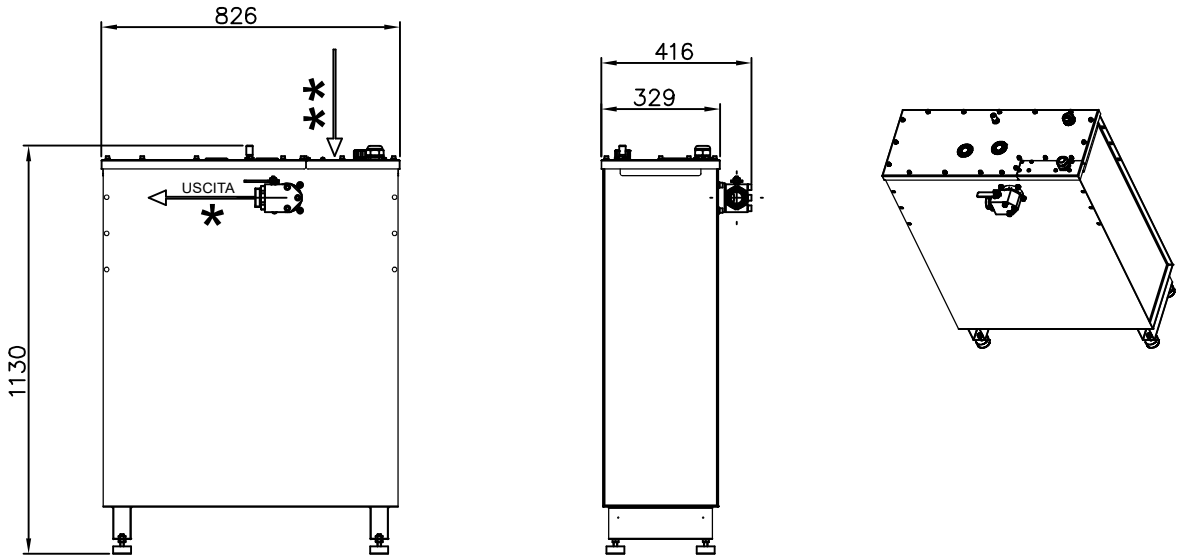
OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

POWER UNIT WEIGHT WITHOUT OIL	117 KG

NOTE:

- DISTRIBUTOR: VEM 250
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-MARK2-VEM	DATE 09/21 DWG Nr. 9018/CM320MK2VEM



THREE-PHASE MOTOR: From 2.7 up to 20 CV (2 / 15 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 150 L/min.
PRESSURE: From 12 up to 45 BAR

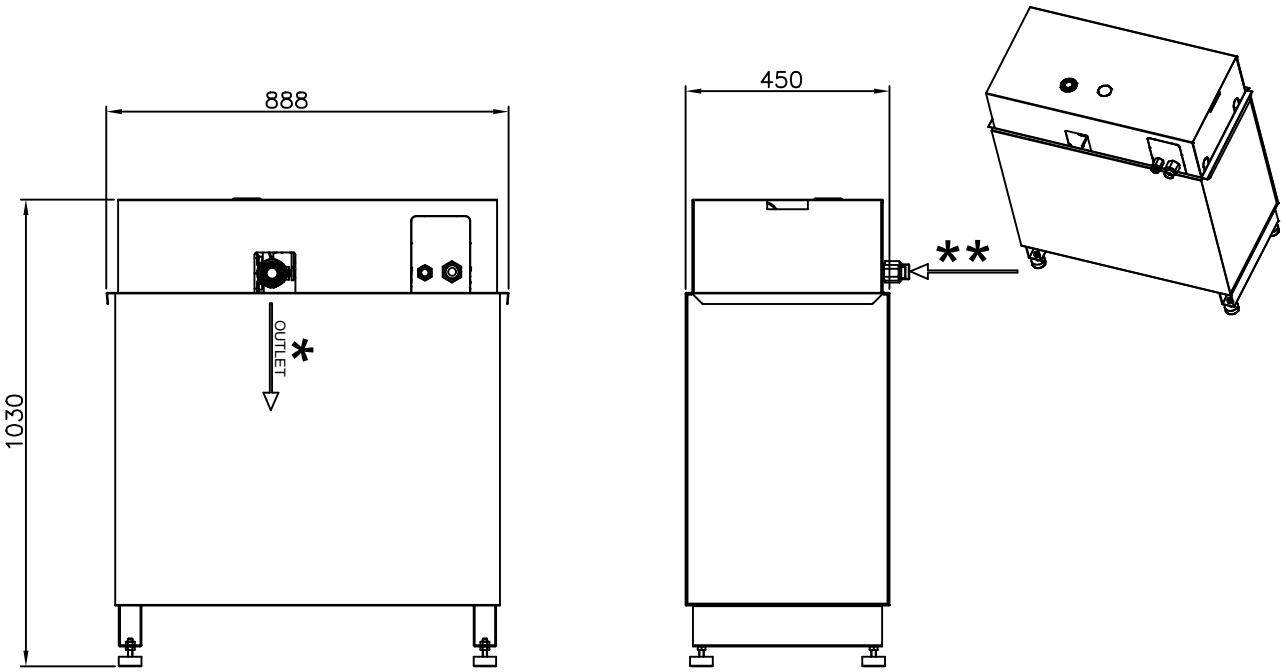
OIL QUANTITY	
MINIMUM LEVEL	50 litres
USEFUL OIL	85 litres
TOTAL OIL	135 litres

POWER UNIT WEIGHT WITHOUT OIL	135 KG

NOTE:

- DISTRIBUTOR: 15-150 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS (CM320MK2): SEE TAB. 9291
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM320-TS	DATE 09/22
				DWG Nr. 9018/CM320-TS



THREE-PHASE MOTOR: From 6 up to 25 CV (4.5 / 18.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 210 L/min.
PRESSURE: From 12 up to 45 BAR

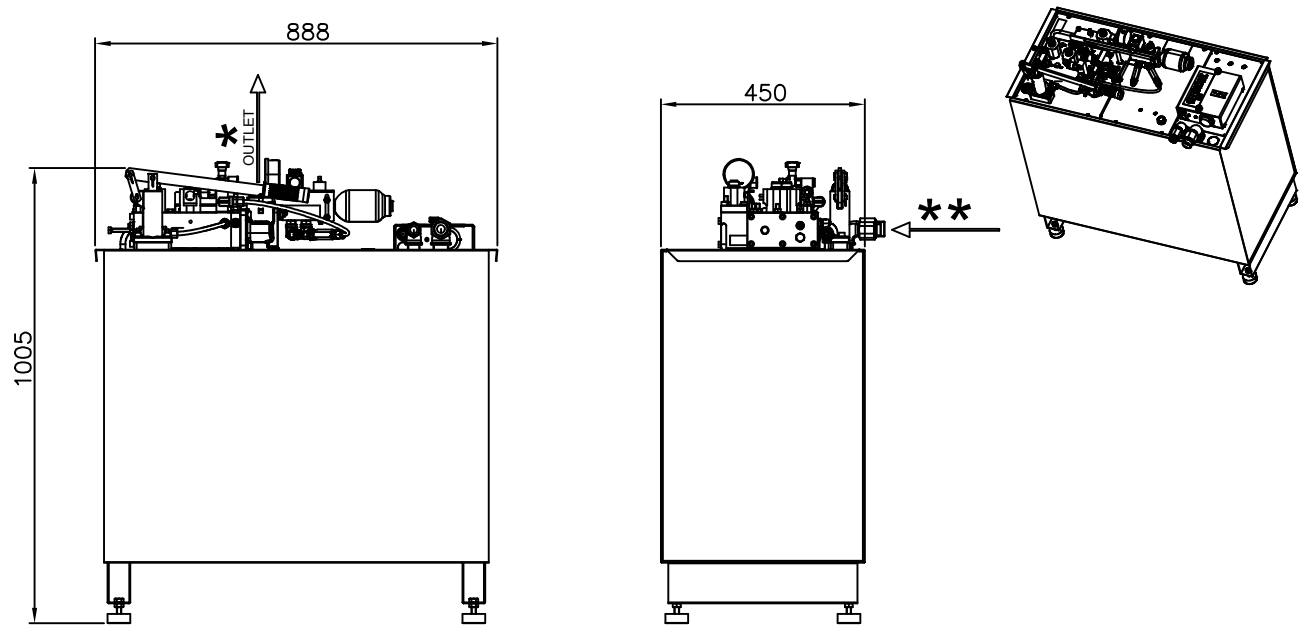
OIL QUANTITY	
MINIMUM LEVEL	65 litres
USEFUL OIL	150 litres
TOTAL OIL	215 litres

POWER UNIT WEIGHT WITHOUT OIL	136 KG

NOTE:

- DISTRIBUTOR: 15-250 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2) FOR PUMP UNTIL 150 L/min (OPTIONAL)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2) FOR PUMP UNTIL 150 L/min
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2)
  FOR PUMP From 180 L/min. up to 210 L/min.
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATE 03/24
	DATA SHEET POWER UNIT CM-MARK2	DWG Nr. 9018/CM-MK2



THREE-PHASE MOTOR: From 6 up to 25 CV (4.5 / 18.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 210 L/min.
PRESSURE: From 12 up to 45 BAR

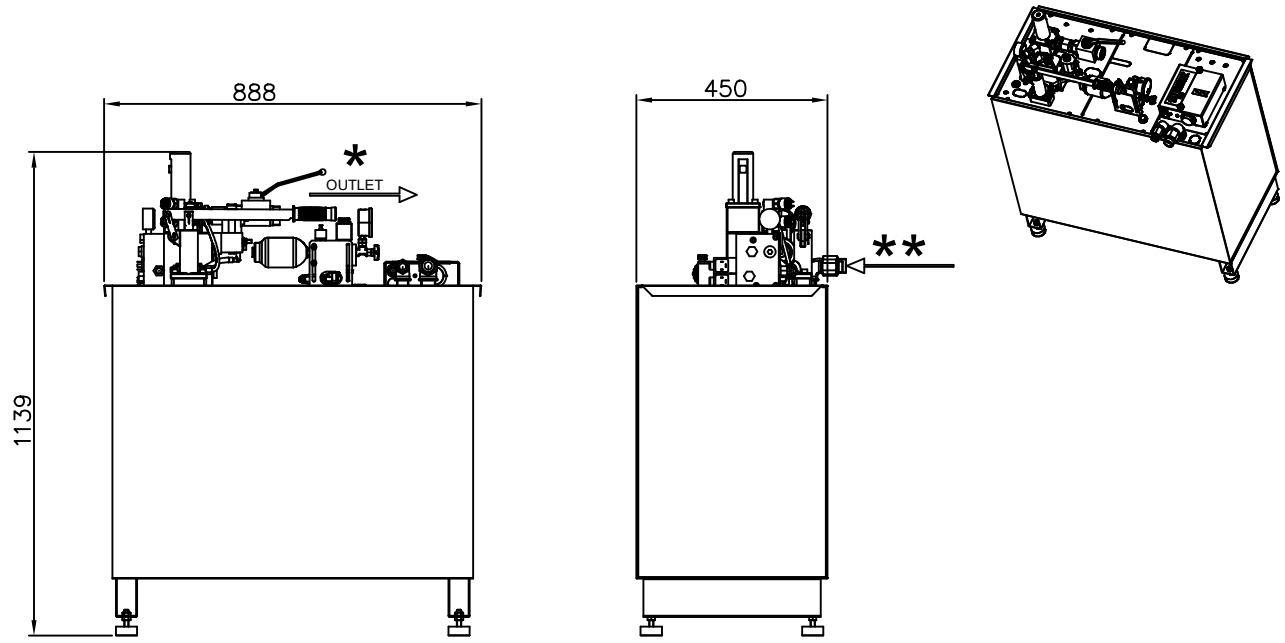
OIL QUANTITY	
MINIMUM LEVEL	65 litres
USEFUL OIL	150 litres
TOTAL OIL	215 litres

POWER UNIT WEIGHT WITHOUT OIL	126 KG

NOTE:

- DISTRIBUTOR: 15-250 L/1'
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2) FOR PUMP UNTIL 150 L/min (OPTIONAL)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2) FOR PUMP UNTIL 150 L/min
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2)
  FOR PUMP From 180 L/min. up to 210 L/min.
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)
- VERTICAL OUTLET STANDARD
- HORIZONTAL OUTLET OPTIONAL

UT		DATE 09/24
	DATA SHEET POWER UNIT CM-MARK2-A	DWG Nr. 9018/CM-MK2-A



THREE-PHASE MOTOR: From 6 up to 25 CV (4.5 / 18.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 55 up to 210 L/min.
PRESSURE: From 12 up to 60 BAR

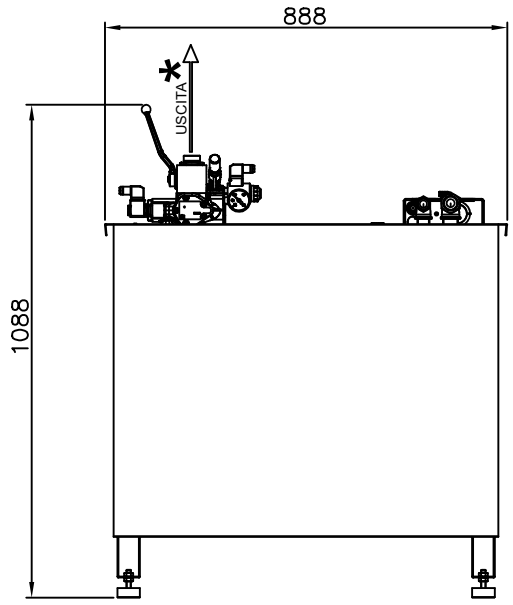
OIL QUANTITY	
MINIMUM LEVEL	65 litres
USEFUL OIL	150 litres
TOTAL OIL	215 litres

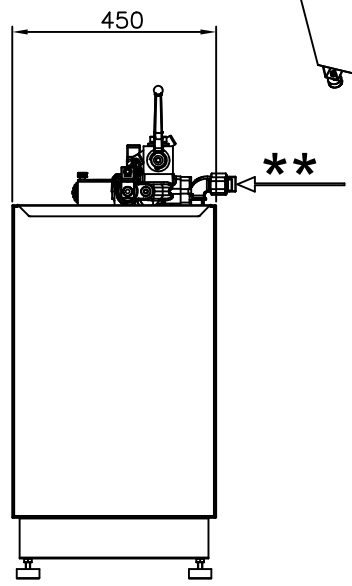
POWER UNIT WEIGHT WITHOUT OIL	126 KG

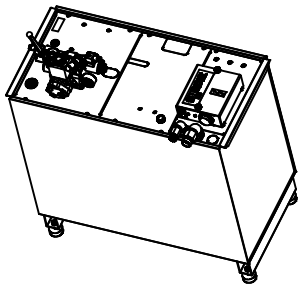
NOTE:

- DISTRIBUTOR: LRV-175
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2) (until 150 l/min)
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2) (from 180 to 210 l/min)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CM-MARK2-LRV	DATE 03/24 DWG Nr. 9018/CM-MK2-LRV







THREE-PHASE MOTOR: From 6 up to 25 CV (4.5 / 18.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 210 L/min.
PRESSURE: From 12 up to 60 BAR

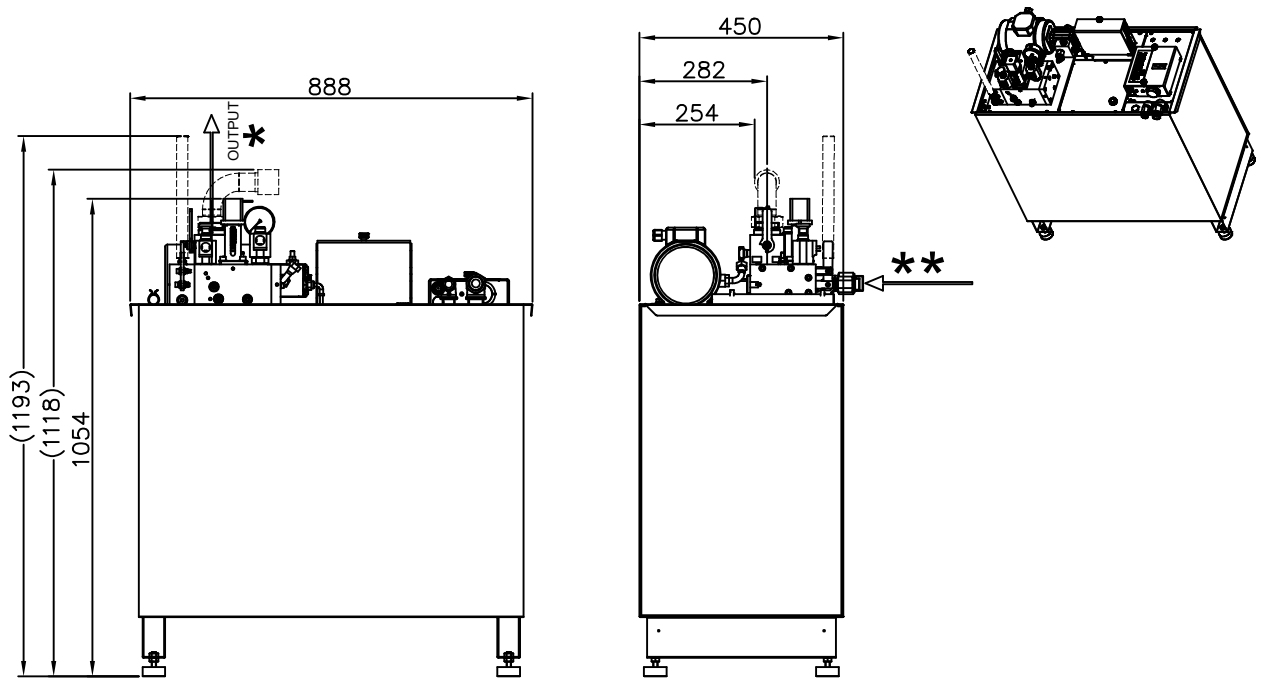
OIL QUANTITY	
MINIMUM LEVEL	65 litres
USEFUL OIL	150 litres
TOTAL OIL	215 litres

POWER UNIT WEIGHT WITHOUT OIL	126 KG

NOTE:

- DISTRIBUTOR: I-VALVE 250/250 (180-210 l/min); I-VALVE 250/160 (until 150 l/min)
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATE 03/24
	DATA SHEET POWER UNIT CM-MARK2-IV	DWG Nr. 9018/CM-MK2-IV



THREE-PHASE MOTOR: From 6 up to 25 CV (4.5 / 18.5 kW)
230 V-400 V-415 V ; (50/60 HZ)
MONO-PHASE MOTOR: From 2 up to 8 CV (1.5 / 6 kW)
PUMP: From 30 up to 250 L/min.
PRESSURE: From 10 up to 50 BAR

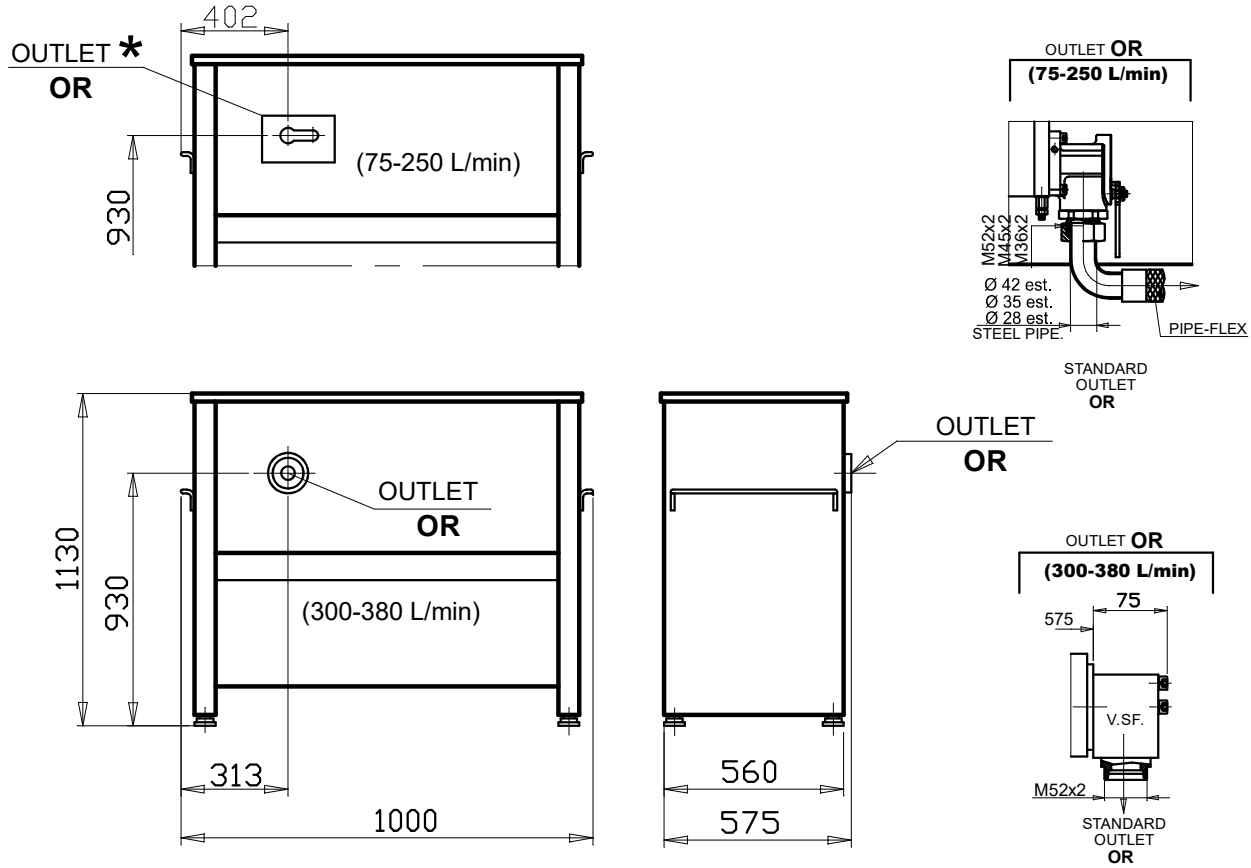
OIL QUANTITY	
MINIMUM LEVEL	65 litres
USEFUL OIL	150 litres
TOTAL OIL	215 litres

POWER UNIT WEIGHT WITHOUT OIL	126 KG

NOTE:

- DISTRIBUTOR: VEM 250
- REF TABLE # 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2)
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2)
- AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS: SEE TAB. 9291
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATA SHEET POWER UNIT CM-MARK2-VEM	DATE 03/24 DWG Nr. 9018/CM-MK2-VEM



THREE-PHASE MOTOR: 6 10 / 40 CV (4.5 / 30 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: DA 75 / 380 L/1'

PRESSURE: DA 12 / 45 BAR

SPECIAL EXECUTION:

- 50HP MOTOR min.oil lev. 95L; use oil lev. 205L;MAX oil lev. 290L

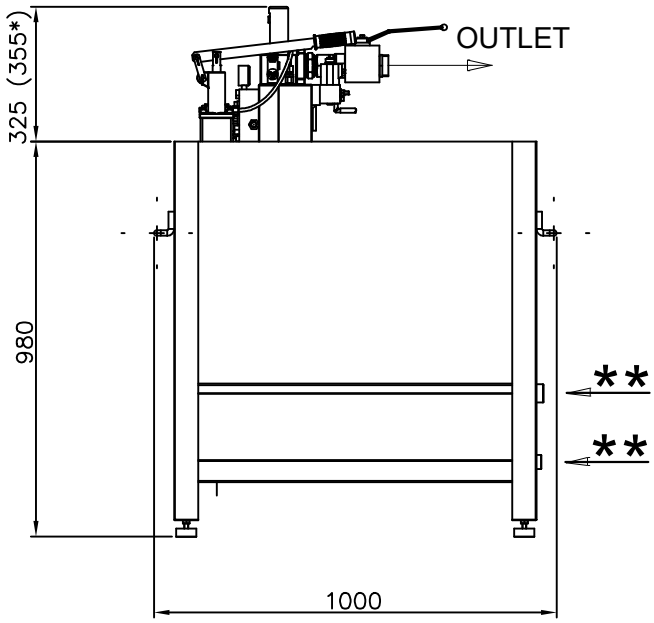
OIL QUANTITY	
MINIMUM LEVEL	55 litres
USEFUL OIL	245 litres
TOTAL OIL	300 litres

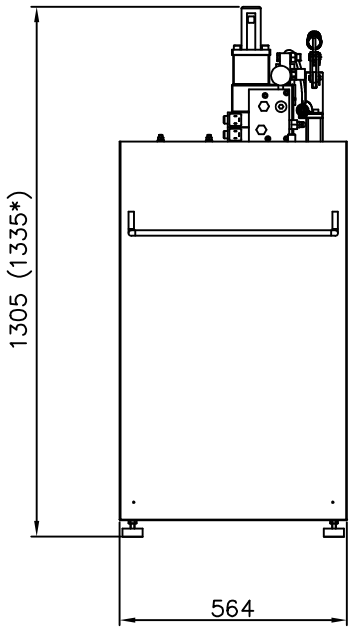
POWER UNIT WEIGHT WITHOUT OIL	200 KG

NOTES:

- MORIS S.r.l. ALWAYS RECOMMENDS THE USE OF A STAR/DELTA STARTING FOR ENGINES WITH A POWER 16 Hp (12 Kw)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- WE ADVISABLE TO OUT (*) WITH PIPE-FLEX, WHILE IS INDISPENSABLE, IN LOCKER INSERT (LENGHT.: MIN. 2MT.)
- OUTLET WITH FLEX-PIPE 1" (M36x2) (steel pipe ø28mm)
- OUTLET WITH FLEX-PIPE 1"1/4 (M45x2) (steel pipe ø35mm)
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) (steel pipe ø42mm)
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (OPTIONAL)

UT		DATE
	DATA SHEET POWER UNIT CA	09/24
		DWG Nr. 9211/CA

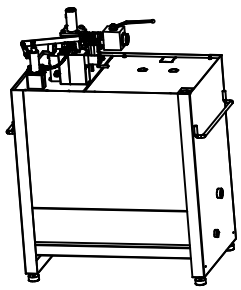




THREE-PHASE MOTOR: From 6 up to 40 CV (4.5 / 30 kW)
230 V-400 V-415 V ; (50/60 HZ)
PUMP: From 180 up to 250 L/min.
PRESSURE: From 12 up to 60 BAR

SPECIAL EXECUTION:

- PUMP From 35 up to 150 L/min.
- PUMP From 300 up to 380 L/min.



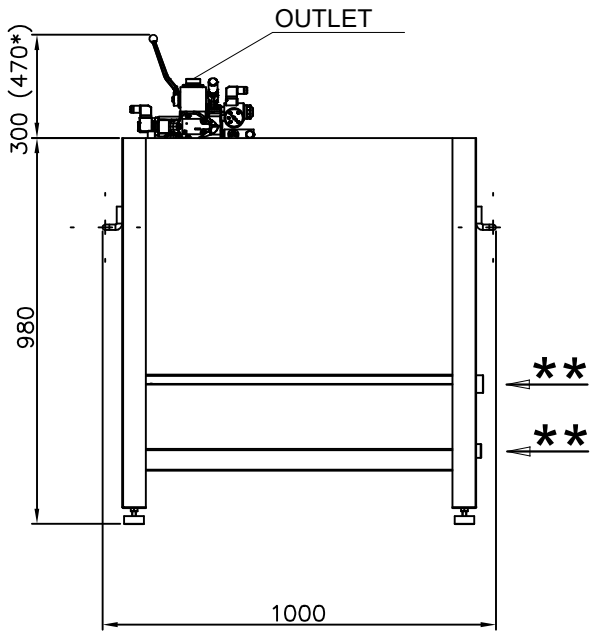
OIL QUANTITY	
MINIMUM LEVEL	55 litres
USEFUL OIL	245 litres
TOTAL OIL	300 litres

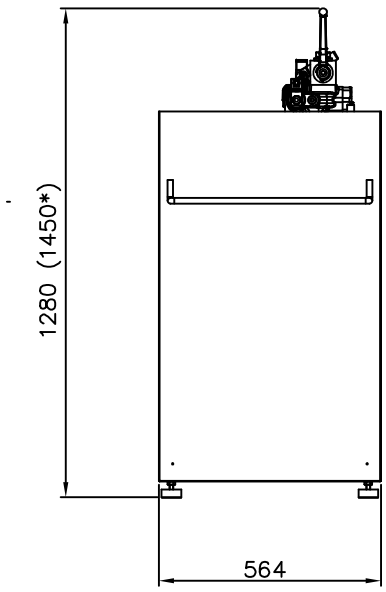
POWER UNIT WEIGHT WITHOUT OIL	138 KG

NOTE:

- DISTRIBUTOR: LRV-175; LRV-350 (*)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1" (M36x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET WITH FLEX-PIPE 1"1/4 (M45x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 380 L/min.
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT			DATA SHEET POWER UNIT CA-LRV	DATE 03/20
				DWG Nr. 9018/CA-LRV

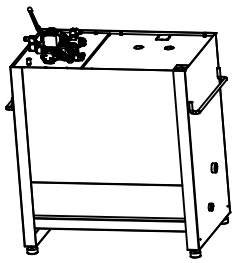




THREE-PHASE MOTOR: From 6 up to 40 CV (4.5 / 30 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: From 180 up to 250 L/min.

PRESSURE: From 12 up to 60 BAR



SPECIAL EXECUTION:

- PUMP From 35 up to 150 L/min.
- PUMP From 300 up to 380 L/min.

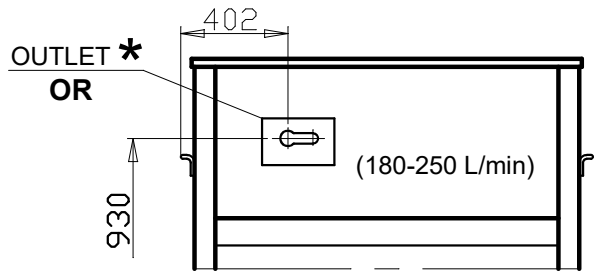
OIL QUANTITY	
MINIMUM LEVEL	55 litres
USEFUL OIL	245 litres
TOTAL OIL	300 litres

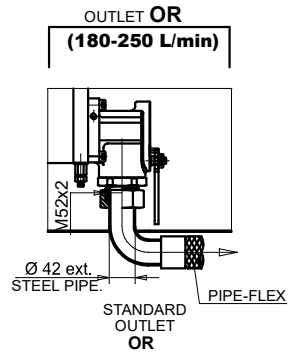
POWER UNIT WEIGHT WITHOUT OIL	138 KG

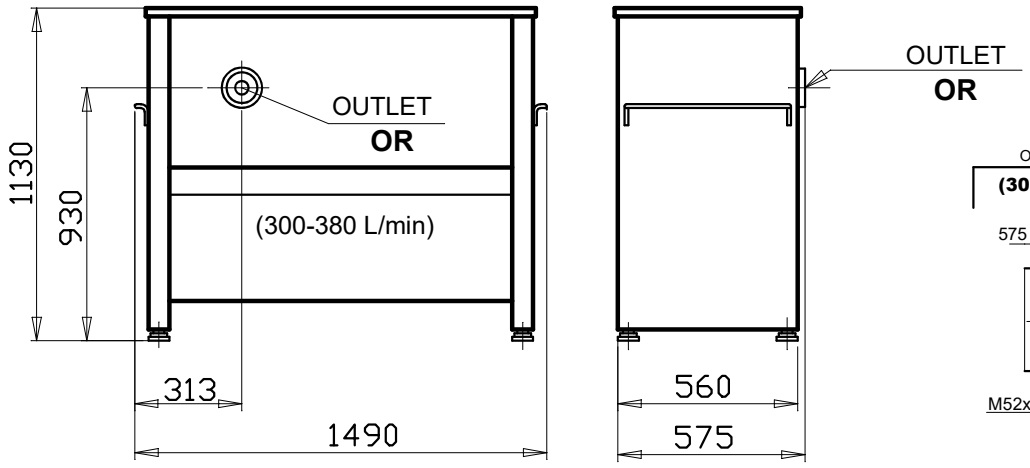
NOTE:

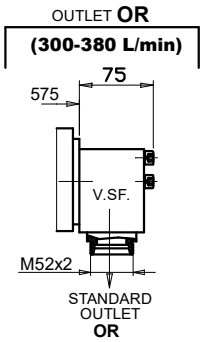
- DISTRIBUTOR: I-VALVE 250/160; I-VALVE 250/250; I-VALVE 500/500 (*)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1" (M36x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET WITH FLEX-PIPE 1"1/4 (M45x2) FOR PUMP to 150 L/min.
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 380 L/min.
- CABINET ARRANGEMENT: SEE CAP.16
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATA SHEET POWER UNIT CA-IV	DATE 03/20
			DWG Nr. 9018/CA-IV









THREE-PHASE MOTOR: DA 10 / 50 CV (7.4 / 37 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: DA 150 / 380 L/1'

PRESSURE: DA 12 / 45 BAR

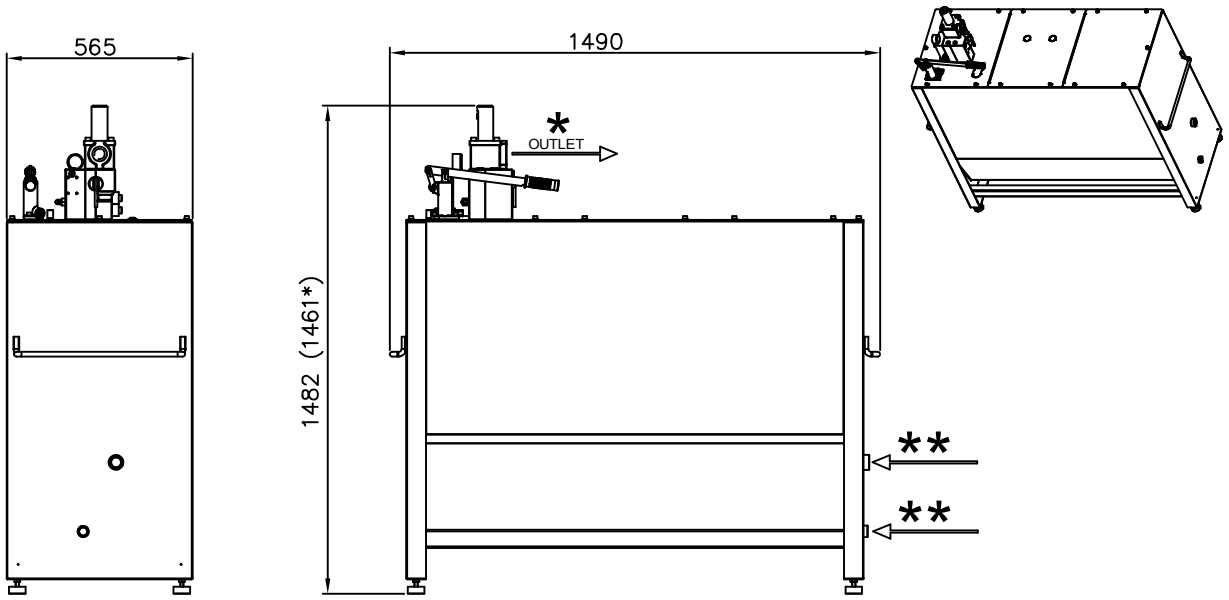
OIL QUANTITY	
MINIMUM LEVEL	160 litres
USEFUL OIL	310 litres
TOTAL OIL	470 litres

POWER UNIT WEIGHT WITHOUT OIL	315 KG

NOTES:

- MORIS S.r.l. ALWAYS RECOMMENDS THE USE OF A STAR/DELTA STARTING FOR ENGINES WITH A POWER 16 Hp (12 Kw)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) (steel pipe ø42mm)
- HEAT EXCHANGER ARRANGEMENT (OPTIONAL)

UT			DATA SHEET POWER UNIT CA/A	DATE 03/24
				DWG Nr. 9211/CA/A



THREE-PHASE MOTOR: From 13 up to 50 CV (9.5 / 37 kW)
230 V-400 V-415 V ; (50/60 HZ)
PUMP: From 180 up to 380 L/min.
PRESSURE: From 12 up to 60 BAR

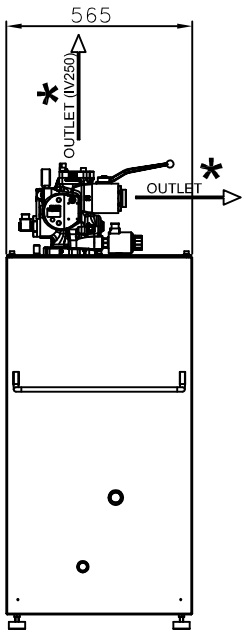
OIL QUANTITY	
MINIMUM LEVEL	160 litres
USEFUL OIL	310 litres
TOTAL OIL	470 litres

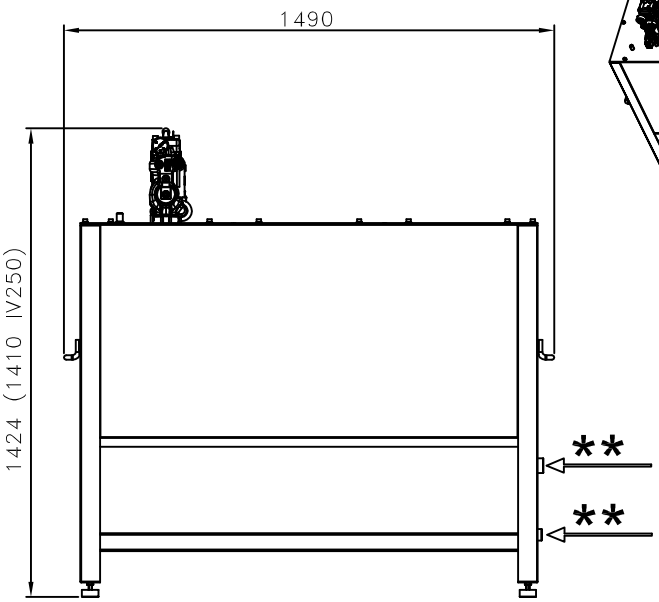
POWER UNIT WEIGHT WITHOUT OIL	315 KG

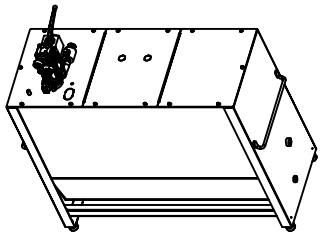
NOTE:

- DISTRIBUTOR: LRV-175; LRV-350
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET (*) WITH FLEX-PIPE 1" (M36x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET (*) WITH FLEX-PIPE 1"1/4 (M45x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET (*) WITH FLEX-PIPE 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 380 L/min.
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATA SHEET POWER UNIT CA/A-LRV	DATE 10/24
			DWG Nr. 9018/CA/A-LRV







THREE-PHASE MOTOR: From 13 up to 50 CV (9.5 / 37 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: From 180 up to 380 L/min.

PRESSURE: From 12 up to 60 BAR

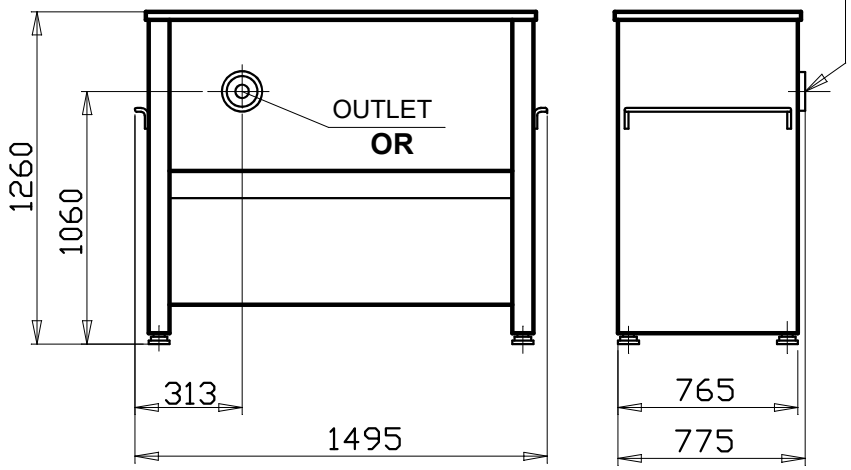
OIL QUANTITY	
MINIMUM LEVEL	160 litres
USEFUL OIL	310 litres
TOTAL OIL	470 litres

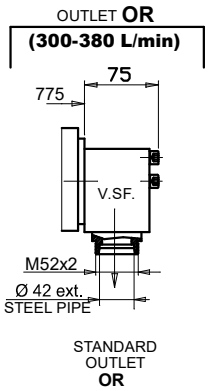
POWER UNIT WEIGHT WITHOUT OIL	315 KG

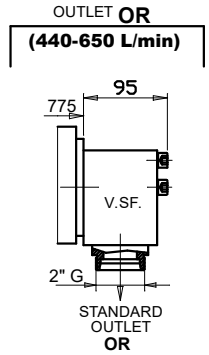
NOTE:

- DISTRIBUTOR: I-VALVE 250/250; I-VALVE 500/500
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE (*) 1" (M36x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET WITH FLEX-PIPE (*) 1"1/4 (M45x2) FOR PUMP From 35 L/min. up to 150 L/min.
- OUTLET WITH FLEX-PIPE (*) 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 380 L/min.
- HEAT EXCHANGER ARRANGEMENT (** OPTIONAL)

UT		DATA SHEET POWER UNIT CA/A-IV	DATE 11/18
			DWG Nr. 9018/CA/A-IV







THREE-PHASE MOTOR: DA 16 / 100 CV (12 / 75 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: DA 300 / 650 L/1'

PRESSURE: DA 12 / 45 BAR

SPECIAL EXECUTION:

- Pump 250 L/1'

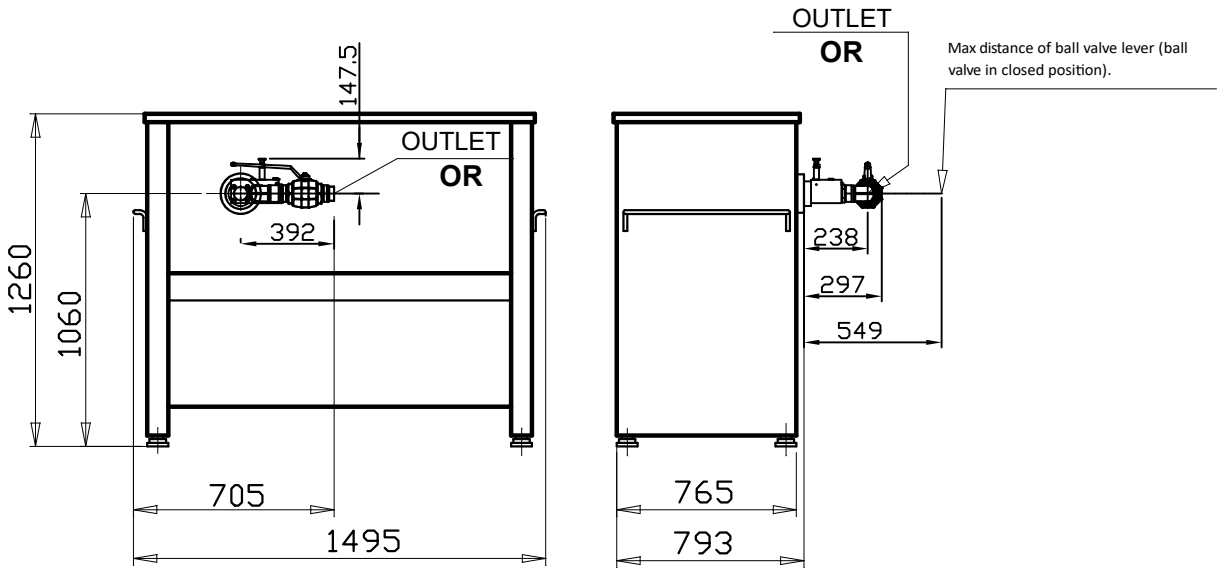
OIL QUANTITY	
MINIMUM LEVEL	220 litres
USEFUL OIL	530 litres
TOTAL OIL	750 litres

POWER UNIT WEIGHT WITHOUT OIL	360 KG

NOTES:

- MORIS S.r.l. ALWAYS RECOMMENDS THE USE OF A STAR/DELTA STARTING FOR ENGINES WITH A POWER 16 Hp (12 Kw)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) (steel pipe ø42mm) 300 - 380 L/min.
- OUTLET WITH FLEX-PIPE 2" GAS 440 - 650 L/min.
- HEAT EXCHANGER ARRANGEMENT (OPTIONAL)

UT		DATE 07/25
	DATA SHEET POWER UNIT CG	DWG Nr. 9211/CG



THREE-PHASE MOTOR: DA 16 / 100 CV (12 / 75 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: DA 330 / 650 L/1'

PRESSURE: DA 12 / 45 BAR

SPECIAL EXECUTION:

- Pump 250 L/1'

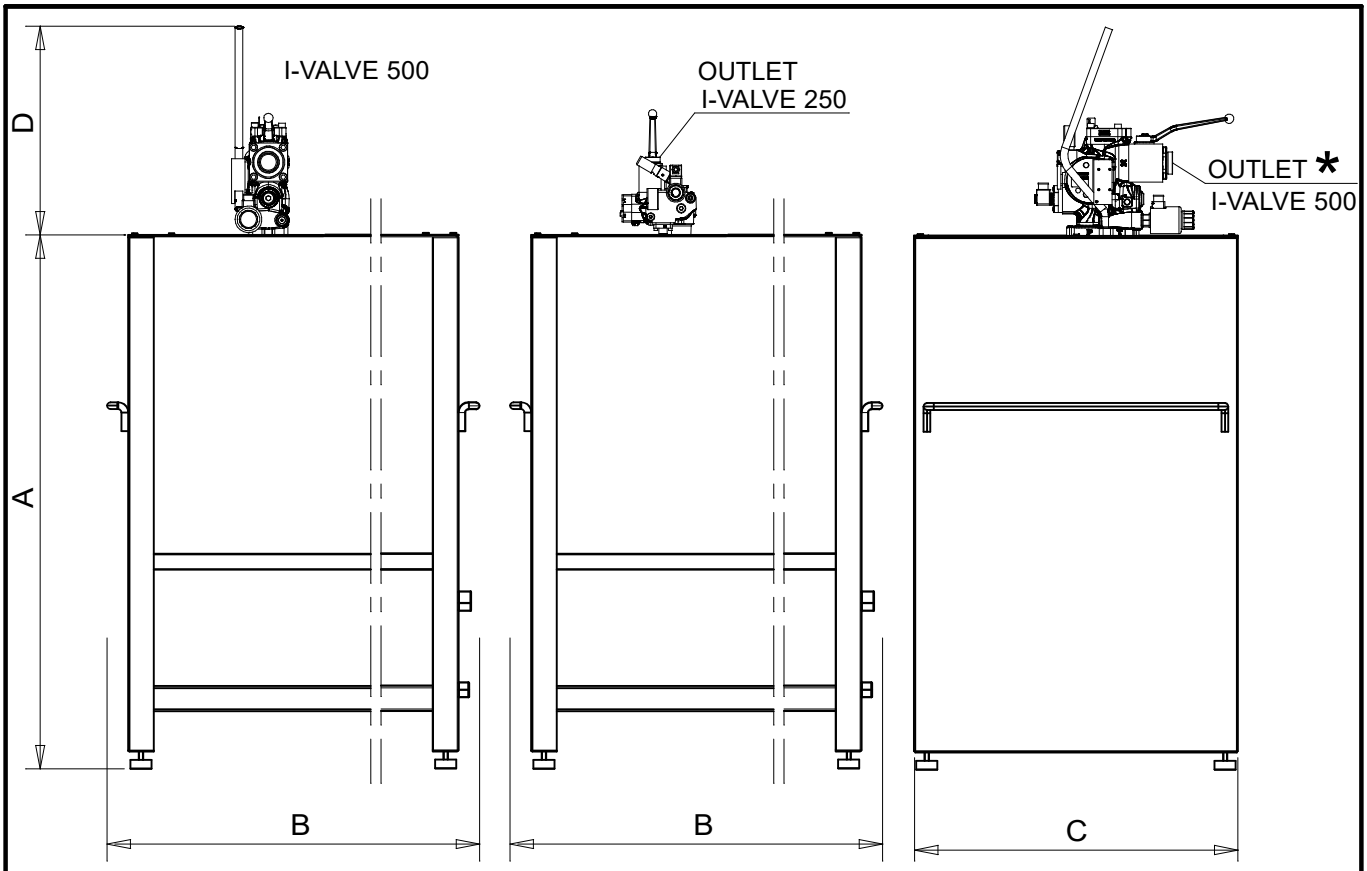
OIL QUANTITY	
MINIMUM LEVEL	220 litres
USEFUL OIL	530 litres
TOTAL OIL	750 litres

POWER UNIT WEIGHT WITHOUT OIL	382 KG

NOTES:

- MORIS S.r.l. ALWAYS RECOMMENDS THE USE OF A STAR/DELTA STARTING FOR ENGINES WITH A POWER 16 Hp (12 Kw)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) (steel pipe ø42mm) 330 - 380 L/min.
- OUTLET WITH FLEX-PIPE 2" GAS 440 - 650 L/min.
- HEAT EXCHANGER ARRANGEMENT (OPTIONAL)

UT		DATE 07/25
	DATA SHEET POWER UNIT CG+hsv650	DWG Nr. 9211/CG+hsv



THREE-PHASE MOTOR: FROM 16 / 80 CV (12 / 60 kW)
230 V - 400 V - 415 V; (50/60 HZ)
PUMP: FROM 180 / 500 L/1'
PRESSURE: FROM 12 /60 BAR

DIMENSIONS	
A	1260
B	1495
C	765
D / I-VALVE 250	300
D / I-VALVE 500	470

OIL QUANTITY	
MINIMUM LEVEL	220 litres
USEFUL OIL	600 litres
TOTAL OIL	750 litres

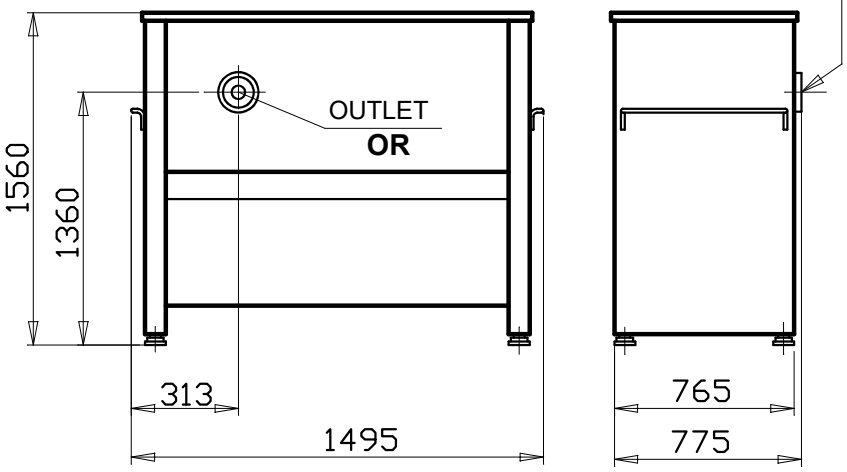
POWER UNIT WEIGHT WITHOUT OIL	360 KG

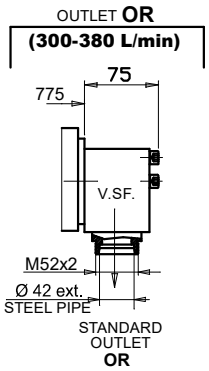
NOTE:

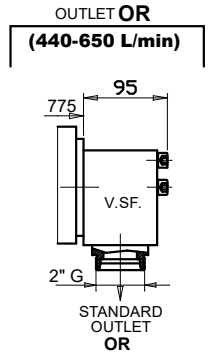
- DISTRIBUTOR: I-VALVE 250; I-VALVE 500
- REF TABLE N° 9017 TO CHOOSE PUMP AND POWER MOTOR

PUMP (L/1')	180-250	300-380	440-500
I-VALVE	250/250	500/500 (*)	500/500 (*)
OUTLET (*)	1" (M36x2) 1"1/4 (M45x2) 1"1/2 (M52x2)	1"1/2 (M52x2)	1"1/2 (M52x2) 2" (GAS)

UT		DATE 07/25
	DATA SHEET POWER UNIT CG-IV	DWG N. 9018/CG-IV







THREE-PHASE MOTOR: DA 16 / 100 CV (12 / 75 kW)
230 V-400 V-415 V ; (50/60 HZ)

PUMP: DA 300 / 650 L/1'

PRESSURE: DA 12 / 45 BAR

SPECIAL EXECUTION:

- Pump 250 L/1'

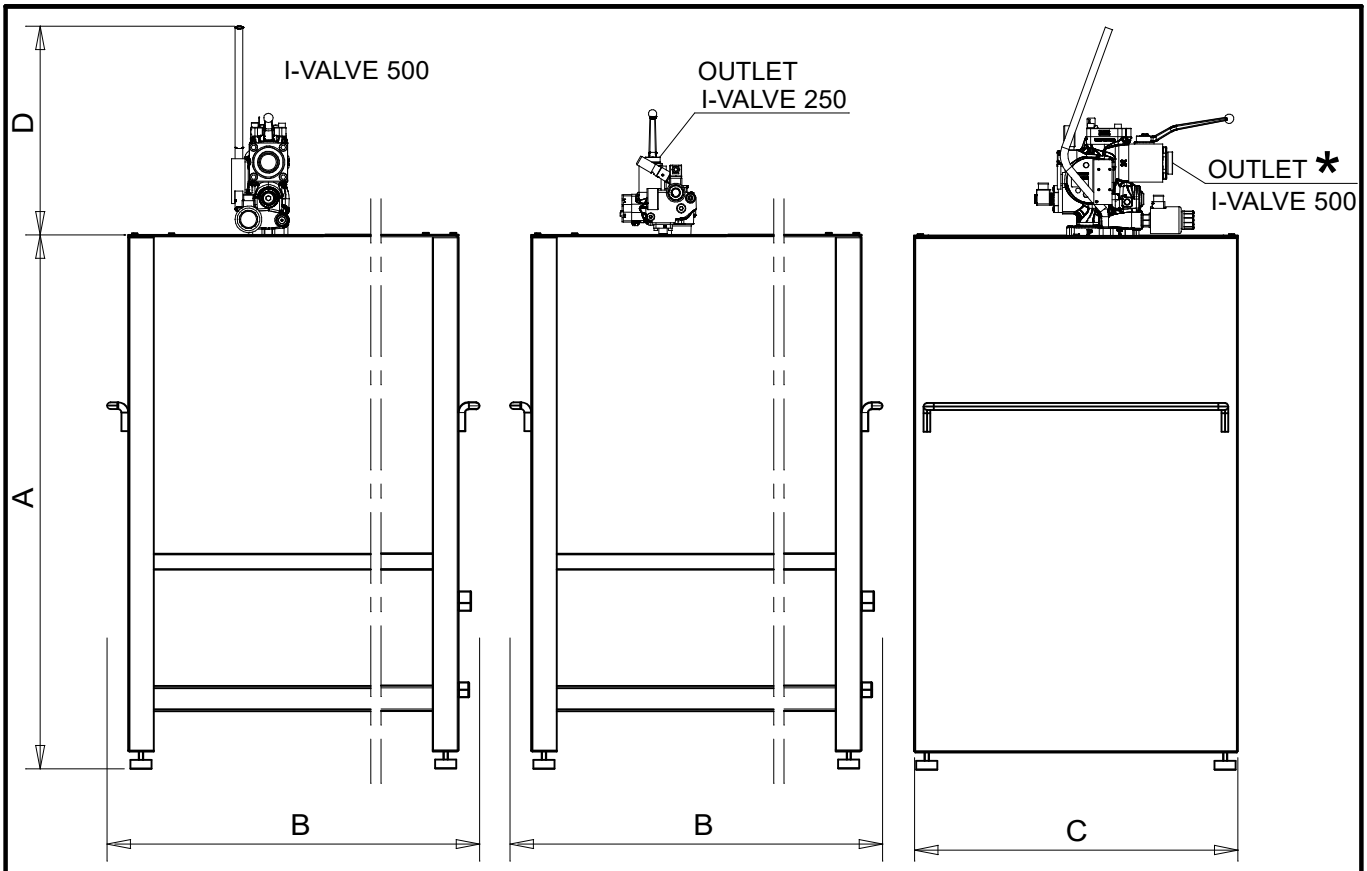
OIL QUANTITY	
MINIMUM LEVEL	220 litres
USEFUL OIL	830 litres
TOTAL OIL	1050 litres

POWER UNIT WEIGHT WITHOUT OIL	400 KG

NOTES:

- MORIS S.r.l. ALWAYS RECOMMENDS THE USE OF A STAR/DELTA STARTING FOR ENGINES WITH A POWER 16 Hp (12 Kw)
- REF TABLE N° 9017, TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX-PIPE 1"1/2 (M52x2) (steel pipe ø42mm) 300 - 380 L/min.
- OUTLET WITH FLEX-PIPE 2" GAS 440 - 650 L/min.
- HEAT EXCHANGER ARRANGEMENT (OPTIONAL)

UT		DATE 07/25
	DATA SHEET POWER UNIT CG-XL	DWG Nr. 9211/CG-XL



THREE-PHASE MOTOR: FROM 16 / 80 CV (12 / 60 kW)
230 V - 400 V - 415 V; (50/60 HZ)
PUMP: FROM 180 / 500 L/1'
PRESSURE: FROM 12 /60 BAR

DIMENSIONS	
A	1560
B	1495
C	765
D / I-VALVE 250	300
D / I-VALVE 500	470

OIL QUANTITY	
MINIMUM LEVEL	220 litres
USEFUL OIL	830 litres
TOTAL OIL	1050 litres

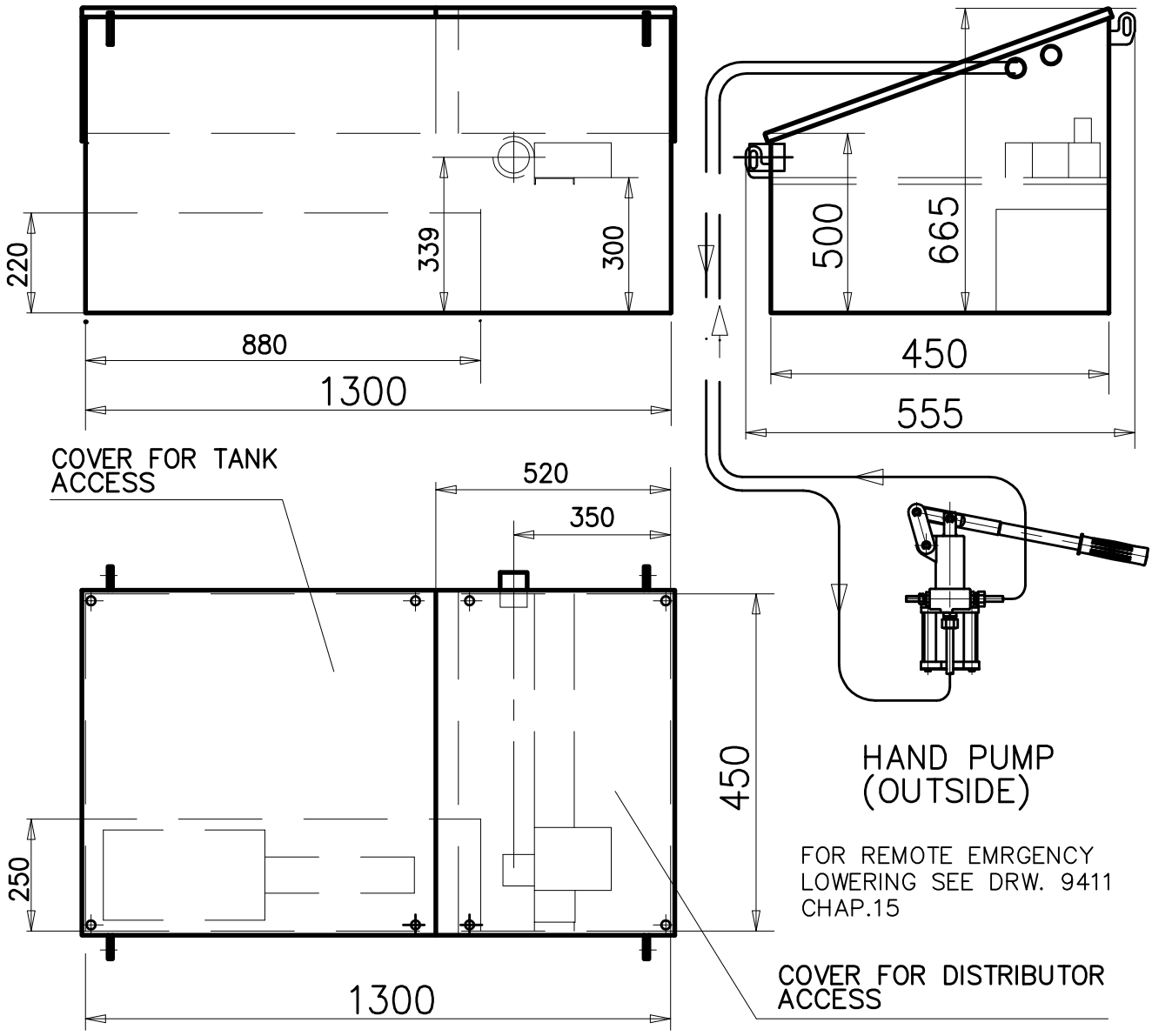
POWER UNIT WEIGHT WITHOUT OIL	400 KG

NOTE:

- DISTRIBUTOR: I-VALVE 250; I-VALVE 500
- REF TABLE N° 9017 TO CHOOSE PUMP AND POWER MOTOR

PUMP (L/1')	180-250	300-380	440-500
I-VALVE	250/250	500/500 (*)	500/500 (*)
OUTLET (*)	1" (M36x2) 1"1/4 (M45x2) 1"1/2 (M52x2)	1"1/2 (M52x2)	1"1/2 (M52x2) 2" (GAS)

UT		DATE 07/25
	DATA SHEET POWER UNIT CG-XL-IV	DWG N. 9018/CG-XL-IV



MONO–PHASE MOTOR: From 3 up to 8 CV (2.2 / 6 kW) – WITHOUT FLYWHEEL

THREE–PHASE MOTOR: From 6 up to 30 CV (4.5 / 22.5 kW)
230 V–400 V–415 V ; (50/60 HZ)

PUMP: From 35 up to 250 L/min.

PRESSURE: From 12 up to 45 BAR

RAM ø : From 50 up to 200 mm

NOTE:

- DISTRIBUTOR: 15–250 L/min
- REF TABLE # 9017 ; 9017–60 HZ TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX–PIPE 1"1/4 (M45x2) FOR PUMP UP TO 150 L/min.
- OUTLET WITH FLEX–PIPE 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 250 L/min.

OIL QUANTITY	
TYPE	CIF–2
MINIMUM LEVEL	70 litres
USEFUL OIL	200 litres
TOTAL OIL	270 litres

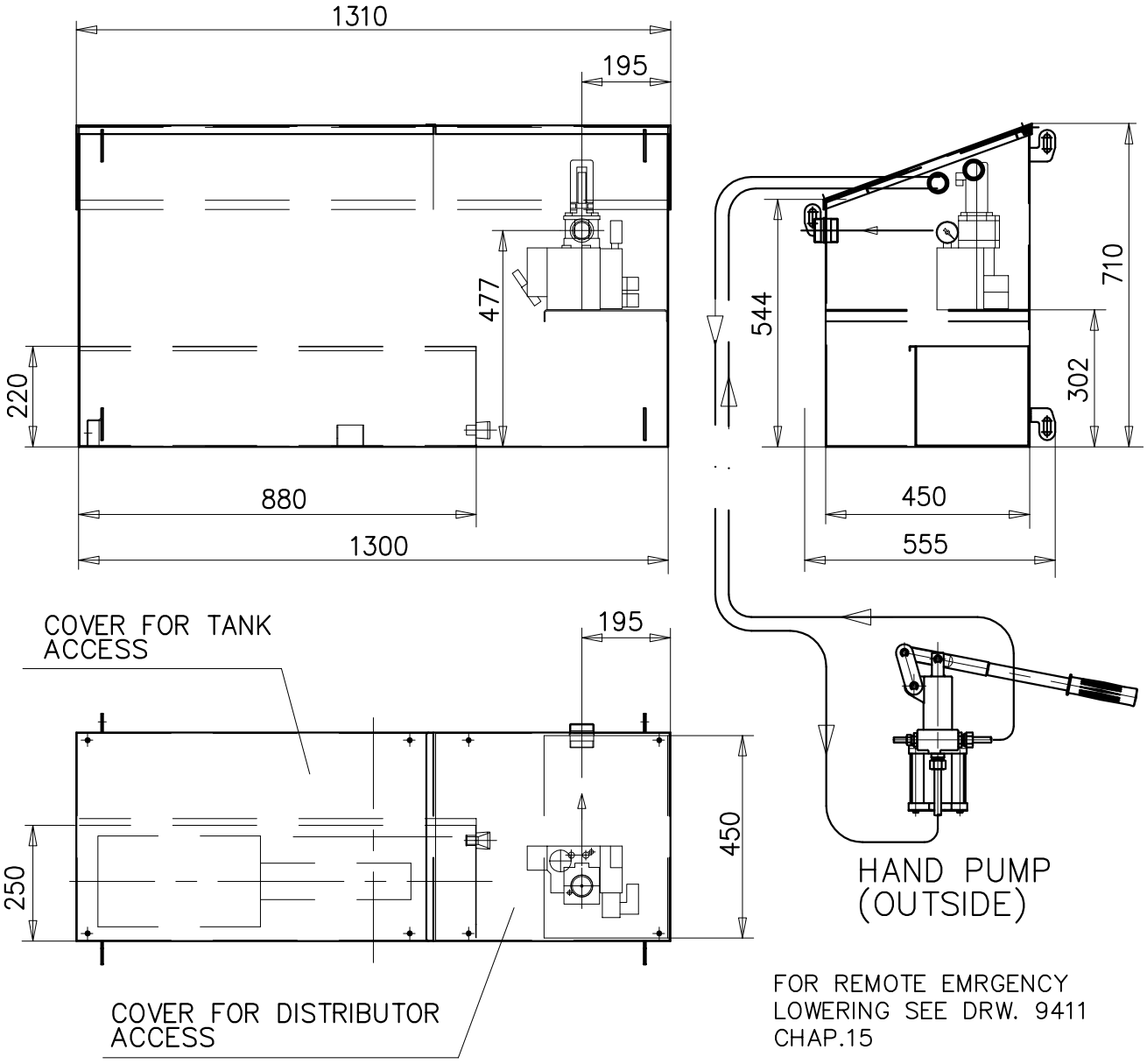
POWER UNIT WEIGHT WITHOUT OIL	
TYPE	KG
CIF–2	160

UT

DATA SHEET
POWER UNIT IN THE PIT "CIF–2"

DATE 01/19

DWG Nr. 9018/CIF–2



MONO–PHASE MOTOR: From 3 up to 8 CV (2.2 / 6 kW) – WITHOUT FLYWHEEL
THREE–PHASE MOTOR: From 6 up to 30 CV (4.5 / 22.5 kW)
230 V–400 V–415 V ; (50/60 HZ)
PUMP: From 35 up to 250 L/min.
PRESSURE: From 12 up to 45 BAR
RAM ø : From 50 up to 200 mm

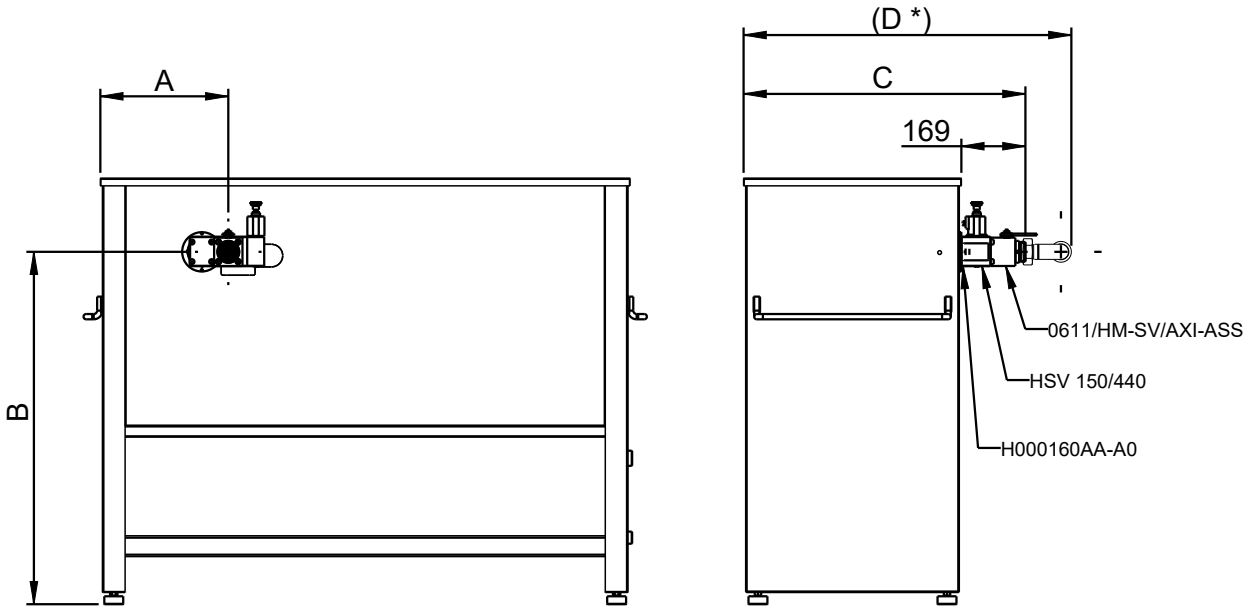
NOTE:

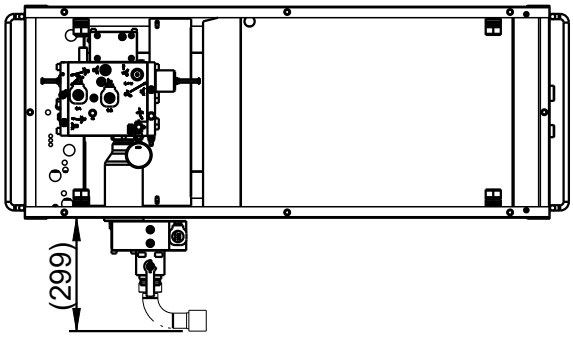
- DISTRIBUTOR: LRV–175
- PLEASE CONTACT OUR TRADE OFFICE TO CHOOSE PUMP AND POWER MOTOR
- OUTLET WITH FLEX–PIPE 1"1/4 (M45x2) FOR PUMP UP TO 150 L/min.
- OUTLET WITH FLEX–PIPE 1"1/2 (M52x2) FOR PUMP From 180 L/min. up to 250 L/min.

OIL QUANTITY	
TYPE	CE/CIF–2–MB
MINIMUM LEVEL	70 litres
USEFUL OIL	210 litres
TOTAL OIL	280 litres

POWER UNIT WEIGHT WITHOUT OIL	
TYPE	KG
CIF–2–MB	160

UT		DATA SHEET POWER UNIT IN THE PIT "CE/CIF–2–MB"	DATE 01/19 DWG Nr. 9018/CIF–2–MB



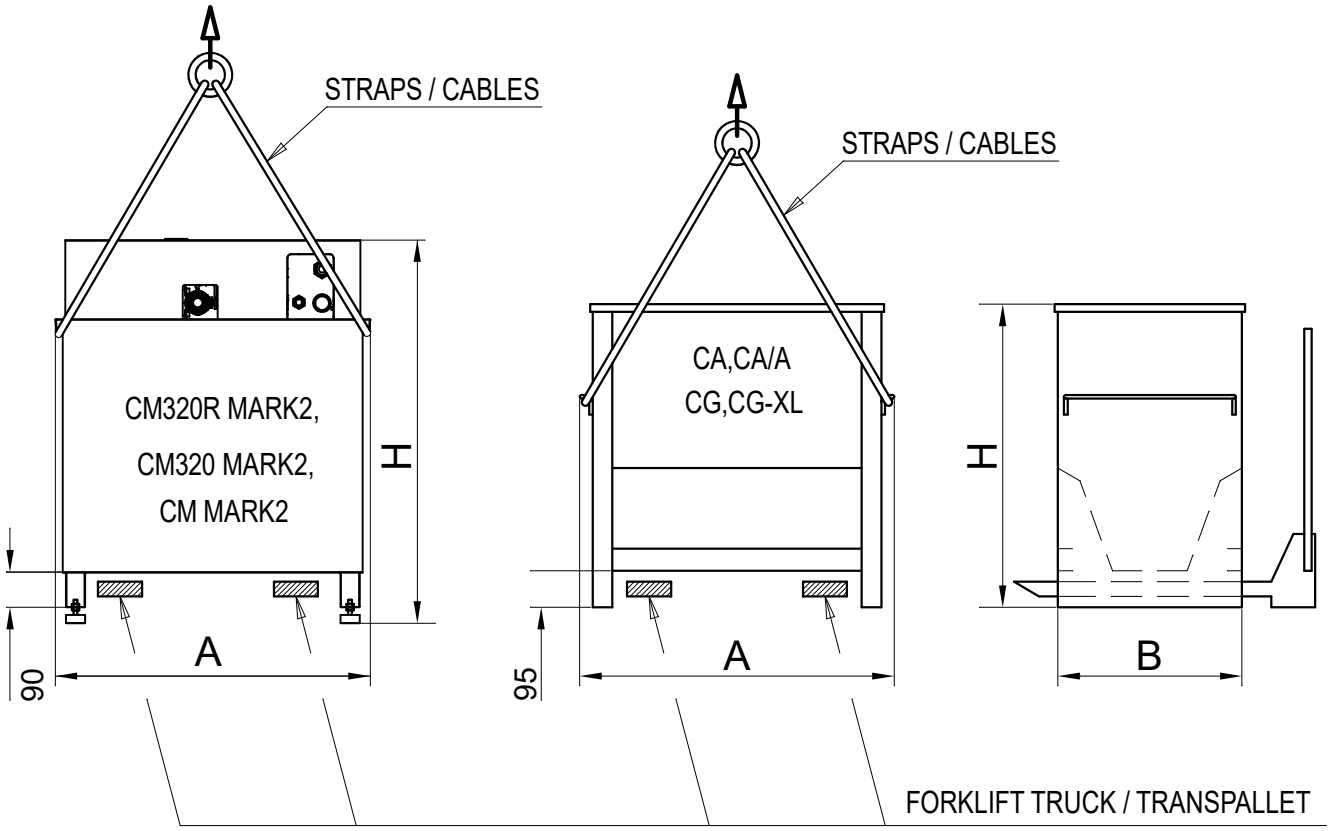


* QUOTA CON ATTACCO TUBOFLEX 90° 1"1/2 MORIS
DIMENSION WITH TUBOFLEX CONNECTION 90° 1"1/2 MORIS

CENTRALINA / POWER UNIT	A	B	C	D
CA (300-380 L/min)	383	930	745	866
CA/A (300-380 L/min)	383	930	745	866
CG	383	1060	944	1065
CG/XL	383	1360	944	1065

UT	DIMENSIONI CENTRALINE - POWER UNIT DIMENSION CA;CA/A;CG;CG/XL + HSV 150/440	DATA 04/08/25
MORIS		N DIS. TAV00000082-A0
TAV00000082-A0-IT/EN		

UNIT TYPE	PUMP DELIVERY L/1'	A (mm)	B (mm)	H (mm)	WEIGTH WITHOUT OIL (Kg)
CM/320R-MARK2	15 - 150	717	320	970	122
CM/320-MARK2	15 - 150	817	320	970	125
CM-MARK2	30 - 150	888	450	1030	136
CA	180 - 250	1000	560	1130	200
CA/A	180 - 380	1490	560	1130	315
CG	300 - 650	1495	765	1260	360
CG-XL	300 - 650	1495	765	1560	400

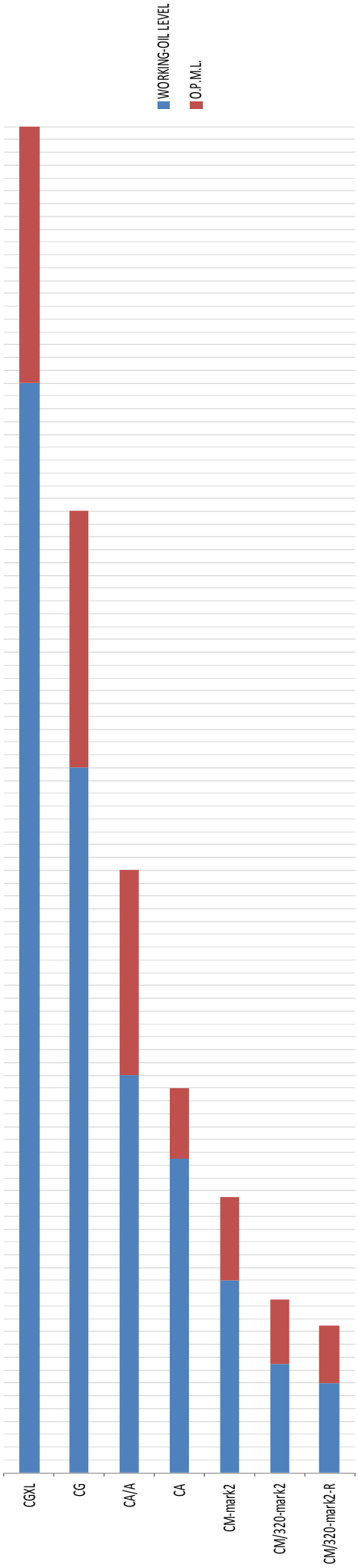


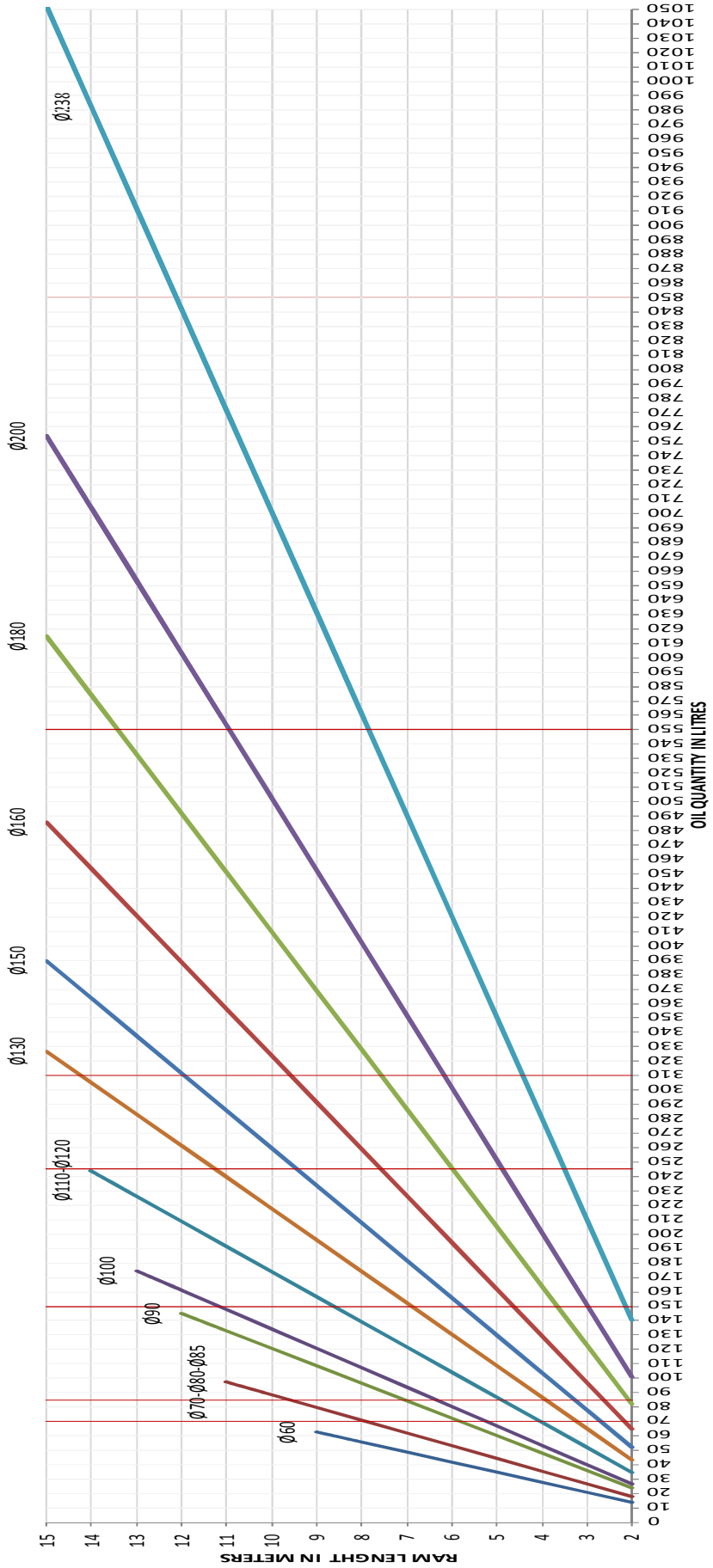


MANUAL
(WHERE PERMITTED)

UT			NOTES FOR GEARCASES HANDLING	DATA 07/25
				N°DIS. 9213

NOTE: O.P.M.L. = OIL PER MINIMUM LEVEL





UT	Sheet 1 of 1	TEST FOR OIL AMOUNT IN POWER UNIT	DATA 10/18
			9215/1

9515/1-IN

CALCULATION OF TOTAL OIL AMOUNT IN INSTALLATION

Qt = Qc + Qr + Qp = LITRES

Qc = MINMUM OIL AMOUNT NEEDED IN THE POWER UNIT IN ORDER TO SUBMERGE THE PUMP/MOTOR UNIT, DEPENDING ON THE UNIT TYPE.

TYPE CM/320-MK2-R	Qc = 45 LITRES
TYPE CM/320-MK2	Qc = 50 LITRES
TYPE CM-MK2	Qc = 65 LITRES
TYPE CA	Qc = 50 LITRES
TYPE CA/A	Qc = 160 LITRES
TYPE CG and CGXL	Qc = 220 LITRES

Qr = OIL AMOUNT IN PIPELINES, RELATIVE TO THE DIAMETER AND LENGHT OF PIPING, ACCORDING TO UNIT TYPE.

Øe 28 PIPE	Qr = 0,38 LITRES/M
Øe 35 PIPE	Qr = 0,65 LITRES/M
Øe 42 PIPE	Qr = 1 LITRES/M
Øe 2" PIPE	Qr = 2,16 LITRES/M

Qp = OIL AMOUNT CONTAINED IN RAM: IT CAN BE CALCULATED USING THE GRAPH OF DRAWING N° 9215/1.

UT	TEST FOR OIL AMOUNT IN POWER UNIT	DATE 11/18
		DWG Nr. 9215/2

A) THE POWER UNIT MUST LAID ON VIBRATION-DAMPING MATERIAL (SEE ADJUSTABLE FEET INIDE THE UNIT).

B) TAKE CARE FOR INSTALLING THE FEED PIPE.

- CHOOSE THE SHORTEST PATH USING 90 DEGREES ELBOWS, OR COLD BEND THE PIPE USING A PIPE BANDER.
- SEE DRAWING Nr. 9300.

C) CHECK THAT THERE AREN'T TRACES OF CONDENSATION OR DAMPNESS INSIDE THE UNIT, OTHERWISE WARM IT.

D) WHEN THE CONNECTION ARE TERMINATED, FILL THE UNIT TANK WITH OIL; THE MAXIMUM LEVEL IS INDICATED ON THE MOTOR SUPPORTING BRACKET.

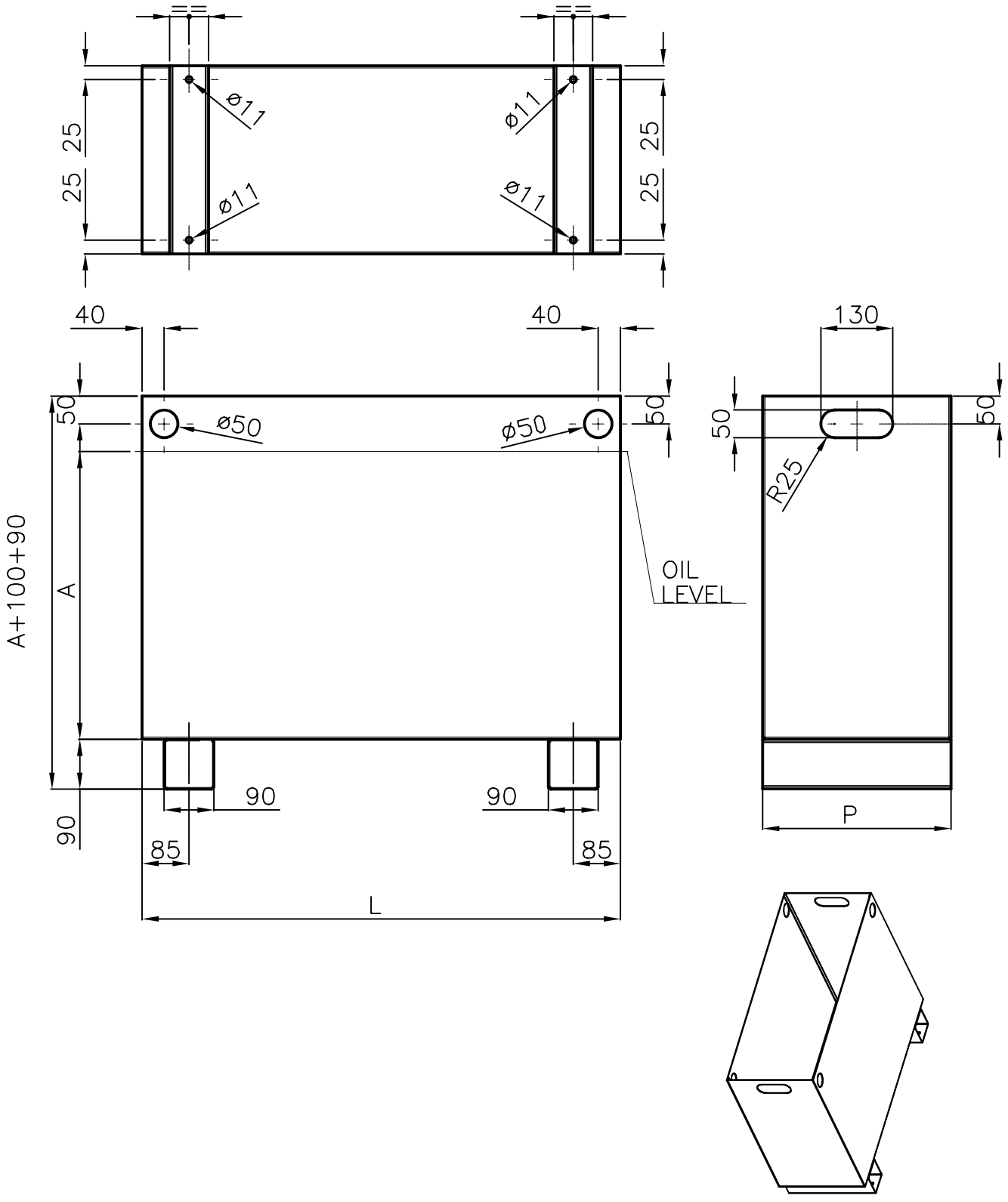
E) DURING THE FIRST MOTOR/PUMP STARTUP, CHECK WHETHER THE NOISE IS TOO HIGH, IN THIS CASE THE PHASES BY THE ELECTRIC BOARD IMPUT MUST BE INVERTED.

F) BLEED THE AIR OUT OF THE CYLINDER, BY LOOSENING INTERMITTENTLY THE BLEEDING SCREW PLACED ON THE CYLINDER HEAD; CONTINUE AT LOW SPEED UNTIL THE OIL COMES OUT AIRLESS.

- THIS OPERATION MUST BE REPEATED SEVERAL TIMES AFTER THE INSTALLATION TO BLEED ALL THE AIR.

G) WITH THE ROD COMPLETELY EXTENDED, CHECK THAT THE MINIMUM OIL LEVEL ISN'T BELOW THE MARK ON THE MOTOR SUPPORTING BRACKET (THE MOTOR/PUMP MUST BE IMMERSED).

UT			INSTRUCTION FOR POWER UNIT ASSEMBLING	DATE 01/16
				DWG Nr. 9280



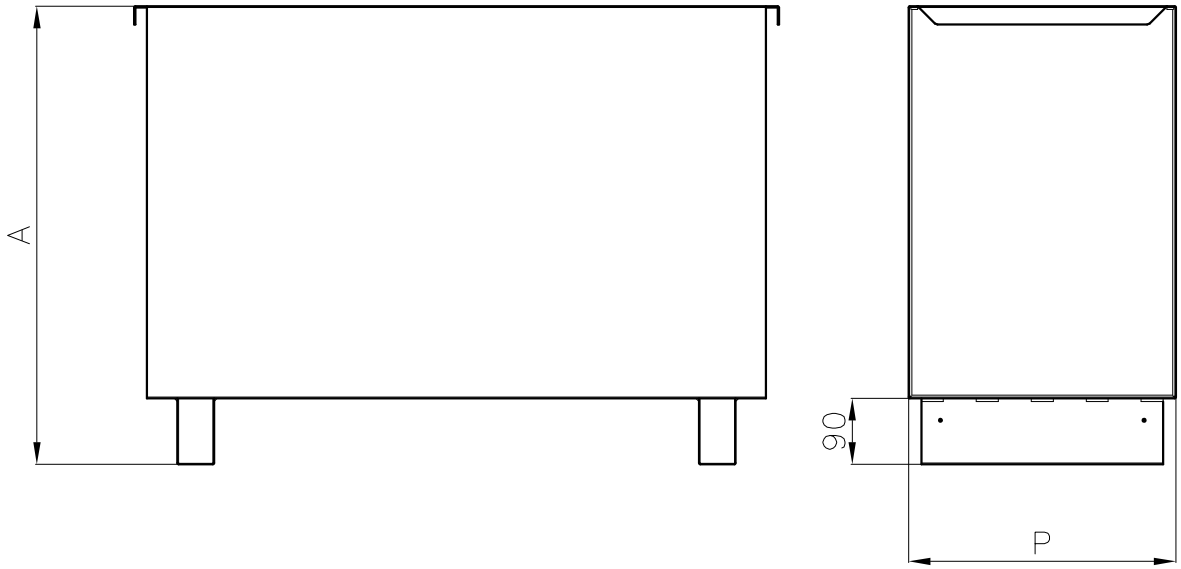
POWER UNIT	CODE	CAPACITY LITERS	L mm	A mm	P mm	WEIGHT Kg
CA	0461-VSP	(300)	1014	573	595	48,8
CA/A	0532 - VSP	(470)	1534	590	595	66,4
CG	0721 - VSP	(830)	1594	620	829	91

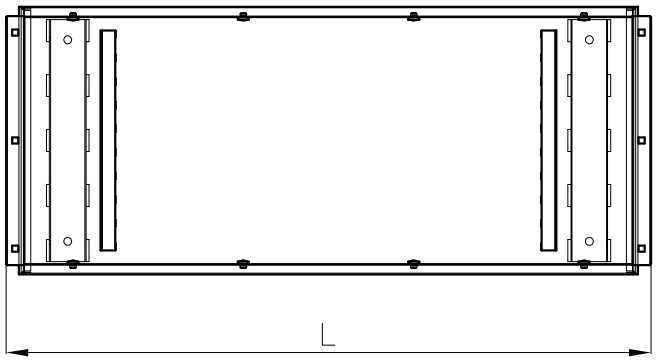
UT

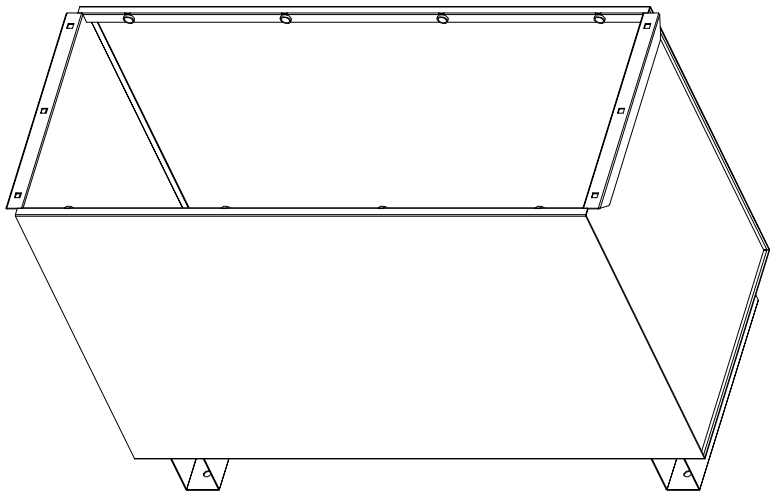
AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS EN 81.20

DATE 04/26

DWG N. 9290







POWER UNIT	CODE	CAPACITY LITERS	L mm	A mm	P mm	WEIGHT Kg
CM-320R-MARK2	H000315AA-A0-ASS	110	780	625	365	20,1
CM-320-MARK2	H000308AA-A0-ASS	130	880	625	365	21,9
CM-MARK2	H000311AA-A0-ASS	210	951	625	495	27,3

UT

AUXILIARY TANK AGAINST POWER UNIT OIL SPILLS EN 81.20

DATE 05/18

DWG N. 9291

9291-IN