

works for you



1975-2015 Forty years of innovation

Main catalogue 2015/16







www.lavorpro.com

### www.lavorpro.com

a website totally renovated in the contents and from the graphical point of view: it will offer easier exploration and more complete technical information.

A website of modern concept helping our customer finding the necessary updated information about our products, easily and in real time.





### www.lavorpro.com

will offer complete product videos about machine running, machine use and plus of the main products of professional range: an additional very useful sales tool. Thanks to the new web site, videos will be integrated directly in the product sheet.

### www.lavorpro.com

connecting to the LAVOR PRO world is just a click away: complete information, products and news available quickly and simply.





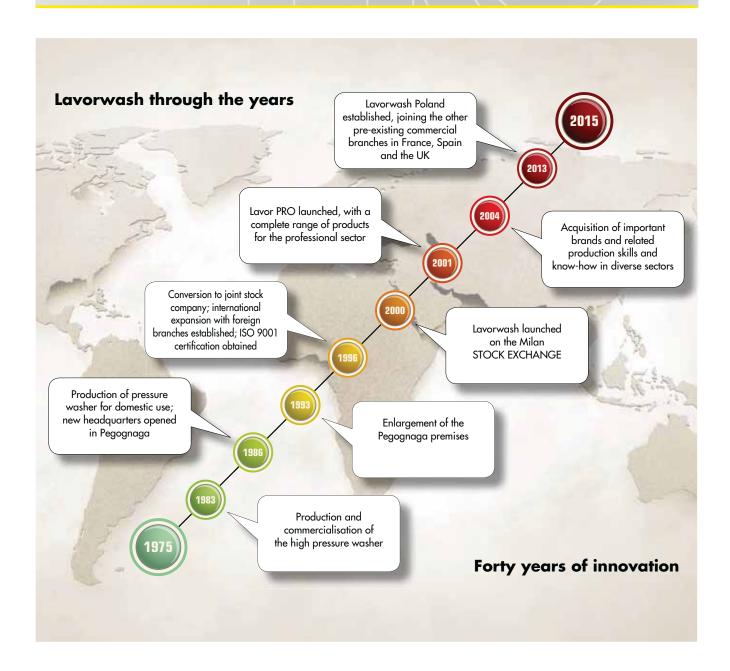
### Anniversary 1975-2015

### The history

Lavorwash was founded in 1975 by entrepreneur Giancarlo Lanfredi. The business began in Suzzara (Mantua) by manufacturing pressure washers and air compressors. Over time, the owner's enormous determination and commitment have brought the firm to its current position as a sector leader in Italy and abroad, offering a wide and diverse product range which encompasses every aspect of cleaning, from household pressure washers and vacuum cleaners to the professional range of pressure washers, vacuum cleaners, wet & dry systems, sweepers, steam cleaners and floor polishers. Today Lavorwash employs over 300 staff members and has around 200 associates, with branches in several countries around the world such as France, the United Kingdom, Spain, Poland, Brazil and China. Lavorwash has production facilities in Italy and abroad, specifically: within Italy, in Pegognaga (MN) for the production of pressure washers and appliances for indoor applications and industrial and professional cleaning systems; in Milan for the production of household vacuum cleaners; in Brazil for pressure washers and vacuum cleaners for the South American market; in China for household pressure washers.



# PROBO LAYOR!









# PROR



Carpet cleaners	Page	84
Industrial vacuum cleaners	Page	94
Single disc machines	Page	107
Walk-behind floor scrubber driers	Page	114
Ride-on floor scrubber driers	Page	130
Walk-behind sweepers	Page	146
Ride-on sweepers	Page	149
Steam generators	Page	158
Chemicals & sprayers	Page	175



### Cold water high-pressure cleaner















LMX XP

Arizona LP

Danubio LP

Michigan LP

Garage LP

Columbia R LP

R LP Hyper C LP

C LP

MCHPV LP

Cords														
8.413.0001 MAX 1211 XP 12 50-120 (150) 725-1740(7175) 6-60 2-71 3300 2800 230-50 40 35.5/78 60.37.5 h 72.5 121/20.800 8.413.0015 MAX 2007 XP 12 50-200 (220) 725-2900(3190) 420 1.85 3300 2800 230-50 40 35.7/78 60.37.5 h 72.5 121/20.800 1.86 320 1.0012 1.0			Page	Operating pressure (max pressure)	Operating pressure (max pressure)	Delivery rate	Delivery rate	Absorbed power	RPM	Voltage	Max inlet water temperature	Weight with packaging	Packaging	Pieces for pallet
8.413.0015	Code	Model		bar (max bar)	psi (max psi)	l/h	GPM	W	RPM	V - Hz	°C	Kg/lbs	cm	n°(cm x cm)
8.45.0008	8.613.0001	LMX 1211 XP	12	50÷120 (150)	725÷1740(2175)	660	2.91	3300	2800	230 - 50	40	35.5/78	60x37,5 h 72.5	12(120x80)
8.665.0001 ARIZONA 1209 LP 13 120 (150) 1740 (2175) 510 2.23 2300 1450 230-50 40 30.5/67 60x38 h72 12(120-80) 8.665.0006 ARIZONA 1311 LP 13 130 (150) 1885 (2175) 660 2.90 2900 1450 230-50 40 32.5/71 60x38 h72 12(120-80) 8.665.0002 HYPER A 1510 LP 14 150 (160) 2175 (2320) 600 2.64 2.90 2900 1450 230-50 40 32.5/71 60x38 h72 12(120-80) 8.655.0001 DANUBIO 1211 LP 15 30-120 (150) 435-1740 (2175) 660 2.91 3000 1450 230-50 40 32.5/71 60x38 h72 12(120-80) 8.655.0001 DANUBIO 1510 LP 15 30-120 (150) 435-1740 (2175) 660 2.91 3000 1450 230-50 40 32.5/71 60x38 h72 12(120-80) 8.655.0001 DANUBIO 1515 LP 16 30-120 (150) 435-1740 (2175) 660 2.91 3000 1450 230-50 40 32.5/71 60x38 h72 12(120-80) 8.655.0012 DANUBIO 1515 LP 16 30-150 (140) 435-27175 900 3.76 5000 1450 400-50 40 47/7 77x41 h71 91(20-80) 8.655.0013 DANUBIO 2015 LP 16 30-150 (435-2175) 600 2.91 3000 1450 400-50 40 44/70 77x41 h71 91(20-80) 8.657.0606 MICHGAN 1211 LP 17 30-1250 (435-1812(2175) 660 2.91 3000 1450 230-50 40 57/125 53x65 h120 11(20-80) 8.657.0601 MICHGAN 1515 LP 17 30-150 (435-1812(2175) 660 2.91 3000 1450 400-50 40 45/125 53x65 h120 11(20-80) 8.657.0609 MICHGAN 1515 LP 77 30-150 (435-1812(2175) 660 2.91 3000 1450 400-50 40 67/125 53x65 h120 11(20-80) 8.657.0609 MICHGAN 1215 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/125 53x65 h120 11(20-80) 8.657.0609 MICHGAN 2015 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/125 53x65 h120 11(20-80) 8.657.0609 MICHGAN 2015 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/125 53x65 h120 11(20-80) 8.657.0603 MICHGAN 2015 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/145 53x65 h120 11(20-80) 8.657.0603 MICHGAN 2015 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/145 53x65 h120 11(20-80) 8.657.0603 MICHGAN 2015 LP (**) 17 30-200 435-2900 900 3.96 5000 1450 400-50 40 67/145 53x65 h120 11(20-80) 8.657.0603 MICHGAN 2015 LP (**) 17 30-250 435-3400 900 3.96 5000 1450 400-50 40 67/145 53x65 h120 11(20-80) 8.657.0603 MICHGAN 2015 LP (**) 17 30-250 435-3400 900 3.96 500	8.613.0015	LMX 2007 XP	12	50÷200 (220)	725÷2900(3190)	420	1.85	3300	2800	230 - 50	40	35.7/78	60x37,5 h 72.5	12(120x80)
8.665.0006 ARZONA 1311 LP 13 13 0.(150) 1885(2175) 6660 2.90 2900 1450 230-50 40 32.5/71 60x38 h 72 12(120-80) 8.665.0007 HYPER A 1310 LP 14 130 (150) 1885(2175) 660 2.90 2900 1450 230-50 40 32.5/71 60x38 h 72 12(120-80) 8.665.0002 HYPER A 1510 LP 14 15 30x120(150) 435-1740(2175) 660 2.91 3000 1450 230-50 40 32.5/71 60x38 h 72 12(120-80) 8.659.0009 DANUBIO 1510 LP 15 30x120(150) 435-1740(2175) 660 2.91 3000 1450 230-50 40 38.6/85 77x41 h 71 91(20x80) 8.659.0009 DANUBIO 1510 LP 15 30x150(160) 435-2175(2320) 540 2.38 3000 1450 230-50 40 38.7/7 77x41 h 71 91(20x80) 8.659.0012 DANUBIO 1515 LP 16 30x150 40 435-2175 900 3.96 5000 1450 400-50 40 44/77 77x41 h 71 91(20x80) 8.659.0013 DANUBIO 1515 LP 16 30x150 40 435-2175 900 3.96 5000 1450 400-50 40 44/77 77x41 h 71 91(20x80) 8.659.0013 DANUBIO 1211 LP 17 30x125 (150) 435-1812 (2175) 660 2.91 3000 1450 400-50 40 46/701 77x41 h 71 91(20x80) 8.657.0619 MICHGAN 1211 LP (*) 17 30x125 (150) 435-1812 (2175) 660 2.91 3000 1450 230-50 40 55/121 53x65 h 120 1 (120x80) 8.657.0619 MICHGAN 1211 LP (*) 17 30x125 (150) 435-1812 (2175) 660 2.91 3000 1450 230-50 40 55/121 53x65 h 120 1 (120x80) 8.657.0609 MICHGAN 121 LP (*) 17 30x125 (150) 435-2175 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0609 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0601 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (*) 17 30x200 435-2900 900 3.96 5000 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0630 MICHGAN 2	8.613.0028	LMX 1713 XP	12	50÷170	725÷2900	780	3.43	4700	2800	400 - 50	40	35.5/78	60x37,5 h 72.5	12(120x80)
8.665.0017 HYPER A 1311 LP 14 130 (150) 1885(2175) 660 2.90 2900 1450 230-50 40 32.5/71 60.38 h 72 12(120-80) 8.665.0022 HYPER A 1510 LP 14 150 (160) 2175(3230) 600 2.64 2900 1450 230-50 40 32.5/71 60.38 h 72 12(120-80) 8.659.0001 DANUBIO (1211 LP 15 30.4120(150) 435-1740(2175) 660 2.91 3000 1450 230-50 40 38.6/85 77.41 h 71 9(120-80) 8.659.0012 DANUBIO (1510 LP 15 30.4120(150) 435-1740(2175) 660 2.91 30.00 1450 230-50 40 35.777 77.41 h 71 9(120-80) 8.659.0012 DANUBIO (1515 LP 16 30.4200 435-2900 900 3.96 5000 1450 400-50 40 44/97 77.41 h 71 9(120-80) 8.659.0013 DANUBIO (2015 LP 16 30.4200 435-2900 900 3.96 7000 1450 400-50 40 44/97 77.41 h 71 9(120-80) 8.657.0619 MICHGAN (1211 LP (**) 17 30.4125(150) 435-1812(2175) 660 2.91 3000 1450 230-50 40 55/121 53.65 h 120 1 (120-80) 8.657.0619 MICHGAN (151 LP (**) 17 30.4125(150) 435-1812(2175) 660 2.91 3000 1450 230-50 40 55/125 53.65 h 120 1 (120-80) 8.657.0601 MICHGAN (151 LP (**) 17 30.4155 (150) 435-1812(2175) 660 2.91 3000 1450 230-50 40 57/125 53.65 h 120 1 (120-80) 8.657.0601 MICHGAN (151 LP (**) 17 30.4150 435-2175 900 3.96 5000 1450 400-50 40 65/145 53.65 h 120 1 (120-80) 8.657.0602 MICHGAN (151 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53.65 h 120 1 (120-80) 8.657.0602 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53.65 h 120 1 (120-80) 8.657.0603 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53.65 h 120 1 (120-80) 8.657.0603 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53.65 h 120 1 (120-80) 8.657.0603 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 67/145 53.65 h 120 1 (120-80) 8.657.0603 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 67/145 53.65 h 120 1 (120-80) 8.657.0633 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 7000 1450 400-50 40 67/145 53.65 h 120 1 (120-80) 8.657.0633 MICHGAN (2015 LP (**) 17 30.4200 435-2900 900 3.96 8000 1450 400-50 40 67/145 53.65 h 120 1 (120-80) 8.657.0633	8.665.0001	ARIZONA 1209 LP	13	120 (150)	1740(2175)	510	2.23	2300	1450	230 - 50	40	30.5/67	60x38 h 72	12(120-80)
8.655.0022 HYPER A 1510 LP 14 150 (160) 2175 (2320) 600 2.64 2990 1450 230 50 40 32.5/71 60x38 h 72 12 (120 80) 8.655.0001 DANUBIO 1721 LP 15 30+120 (160) 435+1740 (2175) 660 2.91 3000 1450 230 50 40 38.6/85 77.44 h 71 9 (120 80) 8.655.0009 DANUBIO 1751 UP 15 30+150 (160) 435+1740 (2175) 660 2.91 3000 1450 230 50 40 38.6/85 77.44 h 71 9 (120 80) 8.655.0013 DANUBIO 2015 LP 16 30+150 40 435+2715 900 3.96 5000 1450 400 50 40 44/77 77.44 h 71 9 (120 80) 8.655.0013 DANUBIO 2015 LP 16 30+150 4035+2900 900 3.96 7000 1450 400 50 40 46/10 77.44 h 71 9 (120 80) 8.657.0610 MCHGAN 1211 LP (**) 17 30+125 (150) 435+1812 (2175) 660 2.91 3000 1450 230 50 40 55/121 5365 h 120 1 (120 80) 8.657.0601 MCHGAN 1515 LP 17 30+125 (150) 435+1812 (2175) 660 2.91 3000 1450 230 50 40 57/125 5365 h 120 1 (120 80) 8.657.0601 MCHGAN 1515 LP 17 30+125 (150) 435+1812 (2175) 660 2.91 3000 1450 230 50 40 57/125 5365 h 120 1 (120 80) 8.657.0602 MCHGAN 1515 LP 17 30+125 (150) 435+2715 900 3.96 5000 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0602 MCHGAN 1515 LP (**) 17 30+250 435+2715 900 3.96 5000 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0602 MCHGAN 2015 LP (**) 17 30+220 435+2900 900 3.96 7000 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0603 MCHGAN 2015 LP (**) 17 30+200 435+2900 900 3.96 7000 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0603 MCHGAN 2015 LP (**) 17 30+200 435+2900 900 3.96 7000 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0603 MCHGAN 2015 LP (**) 17 30+200 435+2900 1260 5.55 9400 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0633 MCHGAN 201 LP (**) 17 30+200 435+2900 1260 5.55 9400 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0633 MCHGAN 201 LP (**) 17 30+200 435+2900 1260 5.55 9400 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0633 MCHGAN 201 LP (**) 17 30+250 435+2900 900 3.96 8500 1450 400 50 40 63/139 5365 h 120 1 (120 80) 8.657.0633 MCHGAN 201 LP (**) 17 30+250 435+2900 900 3.96 8500 1450 400 50 40 73/161 5365 h 120 1 (120 80) 8.657.0633 MCHGAN 201 LP (**) 17 30+250 435+2900 900 3.	8.665.0006	ARIZONA 1311 LP	13	130 (150)	1885(2175)	660	2.90	2900	1450	230 - 50	40	32.5/71	60x38 h 72	12(120-80)
8.659.0001 DANUBIO 1211 LP 15 30±120(150) 435±1740(2175) 660 2.91 3000 1450 230±50 40 38.6/85 77.x41 h71 9(120x80) 8.659.0002 DANUBIO 1510 LP 15 30±150(160) 435±2175(2320) 540 2.38 3000 1450 230±50 40 35/77 77.x41 h71 9(120x80) 8.659.0012 DANUBIO 1515 LP 16 30±20 435±2175 900 3.96 5000 1450 400±50 40 44/97 77.x41 h71 9(120x80) 8.659.0013 DANUBIO 2015 LP 16 30±20 435±275 900 3.96 5000 1450 400±50 40 46/101 77.x41 h71 9(120x80) 8.657.0016 MICHIGAN 1211 LP 17 30±125(150) 435±812(2175) 660 2.91 3000 1450 400±50 40 55/125 53x65 h120 1 (120x80) 8.657.0019 MICHIGAN 1211 LP (**) 17 30±125(150) 435±812(2175) 660 2.91 3000 1450 230±50 40 55/125 53x65 h120 1 (120x80) 8.657.0019 MICHIGAN 1515 LP 17 30±150 435±2175 900 3.96 5000 1450 400±50 40 63/139 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 1515 LP (**) 17 30±150 435±2175 900 3.96 5000 1450 400±50 40 63/139 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.96 5000 1450 400±50 40 64/5/142 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 2015 LP (**) 17 30±200 435±2900 900 3.96 7000 1450 400±50 40 66/145 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 2015 LP (**) 17 30±200 435±2900 900 3.96 7000 1450 400±50 40 66/145 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 2015 LP (**) 17 30±200 435±2900 900 3.96 7000 1450 400±50 40 66/145 53x65 h120 1 (120x80) 8.657.0010 MICHIGAN 2015 LP (**) 17 30±200 435±2900 900 3.96 8500 1450 400±50 40 66/145 53x65 h120 1 (120x80) 8.657.0030 MICHIGAN 2015 LP (**) 17 30±200 435±2900 1260 5.55 9400 1450 400±50 40 73/161 53x65 h120 1 (120x80) 8.657.0030 MICHIGAN 2015 LP (**) 17 30±200 435±2900 1260 5.55 9400 1450 400±50 40 73/161 53x65 h120 1 (120x80) 8.657.0030 MICHIGAN 2015 LP (**) 17 30±250 435±3600 900 3.96 8500 1450 400±50 40 73/161 53x65 h120 1 (120x80) 8.657.0030 MICHIGAN 2015 LP (**) 17 30±250 435±3600 900 3.96 8500 1450 400±50 40 73/161 53x65 h120 1 (120x80) 8.657.0031 MICHIGAN 2015 LP 21 30±160 435±2300 900 3.96 8500 1450 400±50 40 73/161 53x65 h120 1 (120x80) 8.657.0031 MICHIGAN 2015 LP 21 30±160 435±2300 900 3.96 8500 1450 400±50	8.665.0017	HYPER A 1311 LP	14	130 (150)	1885(2175)	660	2.90	2900	1450	230 - 50	40	32.5/71	60x38 h 72	12(120-80)
8.659.0009 DANUBIO 1510 LP 15 30=150(160) 435=2175(2320) 540 2.38 3000 1450 230-50 40 35,777 77x41 h 71 9(120x80) 8.659.0012 DANUBIO 1515 LP 16 30=150 435=2175 900 3.96 5000 1450 400-50 40 44,970 77x41 h 71 9(120x80) 8.659.0013 DANUBIO 2015 LP 16 30=200 435=2900 900 3.96 7000 1450 400-50 40 46/101 77x41 h 71 9(120x80) 8.657.0606 MCHIGAN 1211 LP (*) 17 30=125(150) 435=1812(2175) 660 2.91 3000 1450 230-50 40 55/121 53x65 h 120 1 (120x80) 8.657.0601 MCHIGAN 1211 LP (*) 17 30=125(150) 435=1812(2175) 660 2.91 3000 1450 230-50 40 55/125 53x65 h 120 1 (120x80) 8.657.0601 MCHIGAN 1515 LP 17 30=125 (150) 435=1812(2175) 660 2.91 3000 1450 230-50 40 57/125 53x65 h 120 1 (120x80) 8.657.0609 MCHIGAN 1515 LP (*) 17 30=125 (150) 435=2175 900 3.96 5000 1450 400-50 40 64,5/142 53x65 h 120 1 (120x80) 8.657.0609 MCHIGAN 1515 LP (*) 17 30=200 435=2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h 120 1 (120x80) 8.657.0600 MCHIGAN 2015 LP (*) 17 30=200 435=2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h 120 1 (120x80) 8.657.0603 MCHIGAN 2015 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 63/139 53x65 h 120 1 (120x80) 8.657.0603 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MCHIGAN 2021 LP (*) 17 30=200 435=2900 1260 5.55 9400 1450 400-50 40 37/81 53x65 h 120 1 (120x80) 8.657.0631 M M M M M M M M M M M M M M M M M	8.665.0022	HYPER A 1510 LP	14	150 (160)	2175(2320)	600	2.64	2900	1450	230 - 50	40	32.5/71	60x38 h 72	12(120-80)
8.659.012 DANUBIO 1515 LP 16 30±150 435±2175 900 3.9.6 5000 1450 400±50 40 44/97 77x41 h 71 9(120x80) 8.659.013 DANUBIO 2015 LP 16 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 44/97 17x41 h 71 9(120x80) 8.657.0606 MICHIGAN 1211 LP 17 30±125(150) 435±1812(2175) 660 2.91 3000 1450 230±50 40 55/121 53x65 h 120 1 (120x80) 8.657.0601 MICHIGAN 1515 LP 17 30±125 (150) 435±1812(2175) 660 2.91 3000 1450 230±50 40 57/125 33x65 h 120 1 (120x80) 8.657.0609 MICHIGAN 1515 LP 17 30±150 435±1812(2175) 900 3.9.6 5000 1450 400±50 40 63/139 33x65 h 120 1 (120x80) 8.657.0609 MICHIGAN 1515 LP 17 30±200 435±2900 900 3.9.6 5000 1450 400±50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 64.5/142 53x65 h 120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 66/145 53x65 h 120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 66/145 53x65 h 120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 63/139 33x65 h 120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 72.3/161 53x65 h 120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.9.6 7000 1450 400±50 40 73/161 53x65 h 120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP 17 30±250 435±3400 900 3.9.6 8500 1450 400±50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP 17 30±250 435±3400 900 3.9.6 8500 1450 400±50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP 17 30±250 435±3400 900 3.9.6 8500 1450 400±50 40 73/161 53x65 h 120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP 21 30±160 435±2775 900 3.9.6 8500 1450 400±50 40 37/81 53x65 h 120 1 (120x80) 8.650.0031 M M M M M M M M M M M M M M M M M M M	8.659.0001	DANUBIO 1211 LP	15	30÷120(150)	435÷1740(2175)	660	2.91	3000	1450	230 - 50	40	38.6/85	77x41 h 71	9(120x80)
8.657.0013 DANUBIO 2015 LP 16 30-200 435-2900 900 3.96 7000 1450 400-50 40 46/101 77.x41 h 71 9(120x80) 8.657.0606 MICHGAN 1211 LP (1) 17 30-125(150) 435-81812(2175) 660 2.91 3000 1450 230-50 40 55/125 53x65 h120 1 (120x80) 8.657.0619 MICHGAN 1211 LP (1) 17 30-125(150) 435-81812(2175) 660 2.91 3000 1450 230-50 40 55/125 53x65 h120 1 (120x80) 8.657.0610 MICHGAN 1211 LP (1) 17 30-150 435-2175 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h120 1 (120x80) 8.657.0601 MICHGAN 1515 LP (1) 17 30-150 435-2175 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h120 1 (120x80) 8.657.0602 MICHGAN 2015 LP 17 30-200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHGAN 2015 LP (1) 17 30-200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHGAN 2015 LP (1) 17 30-200 435-2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHGAN 2015 LP (1) 17 30-200 435-2900 1260 5.55 9400 1450 400-50 40 63/139 53x65 h120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (1) 17 30-200 435-2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0630 MICHGAN 2015 LP (1) 17 30-220 435-3800 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHGAN 2015 LP (1) 17 30-250 435-3800 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHGAN 2015 LP (1) 17 30-250 435-3800 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHGAN 2015 LP (2) 13 30-150 435-31740(2175) 660 2.91 3000 1450 230-50 40 32.571 60x80 1 1(20x80) 8.650.0002 GARAGE 1211 LP 21 30-160 435-2320 720 3.17 4000 1450 400-50 40 37/81 55x42 h59 12 (120x100) 8.654.0073 COLUMBAR 7151 LP 22 30-150 435-2175 900 3.96 5000 1450 400-50 40 54/118 55x42 h59 12 (120x100) 8.654.0073 COLUMBAR 7151 LP 22 30-150 435-2175 900 3.96 5000 1450 400-50 40 64/138 55x42 h59 12 (120x100) 8.654.0033 HYPER C1515 LP 23 30-150 435-2715 900 3.96 5000 1450 400-50 40 64/138 55x42 h59 12 (120x100) 8.654.0033 HYPER C1515 LP 23 30-150 435-2715 900 3.96 5000 1450 400-50 40 64/139 55x42 h59	8.659.0009	DANUBIO 1510 LP	15	30÷150(160)	435÷2175(2320)	540	2.38	3000	1450	230 - 50	40	35/77	77x41 h 71	9(120x80)
8.657.0606 MICHIGAN 1211 LP 17 30+125(150) 435+1812(2175) 660 2.91 3000 1450 230-50 40 55/121 53x65 h120 1(120x80) 8.657.0619 MICHIGAN 1515 LP 17 30+150 435+2175 900 3.96 5000 1450 400-50 40 63/139 53x65 h120 1(120x80) 8.657.0609 MICHIGAN 1515 LP 17 30+150 435+2175 900 3.96 5000 1450 400-50 40 63/139 53x65 h120 1(120x80) 8.657.0609 MICHIGAN 1515 LP 17 30+150 435+2175 900 3.96 5000 1450 400-50 40 64.5/142 53x65 h120 1(120x80) 8.657.0600 MICHIGAN 2015 LP 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 64.5/142 53x65 h120 1(120x80) 8.657.0610 MICHIGAN 2021 LP 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 64.5/142 53x65 h120 1(120x80) 8.657.0610 MICHIGAN 2021 LP 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 63/139 53x65 h120 1(120x80) 8.657.0611 MICHIGAN 2021 LP 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1(120x80) 8.657.0613 MICHIGAN 2021 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1(120x80) 8.657.0631 MICHIGAN 2021 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1(120x80) 8.657.0631 MICHIGAN 2021 LP (*) 17 30+250 435+3600 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1(120x80) 8.657.0631 MICHIGAN 2021 LP 21 30+160 435+3290 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1(120x80) 8.662.0001 MYSTIC 1309 XP 20 130 (150) 1885(2175) 540 2.38 2800 2800 230-50 40 32.5/71 60x38 h 72 12(120x80) 8.662.0001 GARAGE 121 LP 21 30+160 435+3230 720 3.17 4000 1450 230-50 40 37/81 50x43 h 56 20(120x80) 8.654.0073 (CULUMBIA R 1211 LP 22 30+125 435+1812 660 2.91 3000 1450 230-50 40 40/38 55x62 h 59 12 (120x100) 8.654.0073 (CULUMBIA R 1211 LP 22 30+125 435+1812 660 2.91 3000 1450 400-50 40 59/130 55x62 h 59 12 (120x100) 8.654.0073 (CULUMBIA R 1211 LP 22 30+125 435+1812 660 2.91 3000 1450 400-50 40 59/130 55x62 h 59 12 (120x100) 8.654.0073 (CULUMBIA R 1211 LP 22 30+125 435+1812 660 2.91 3000 1450 400-50 40 59/130 55x62 h 59 12 (120x100) 8.654.0073 (CULUMBIA R 1211 LP 22 30+125 435+1812 660 2.91 3000 1450 400-50 40 59/130 55x62 h 59 12 (120x100) 8.654.0	8.659.0012	DANUBIO 1515 LP	16	30÷150	435÷2175	900	3.96	5000	1450	400 - 50	40	44/97	77x41 h 71	9(120x80)
8.657.0619 MICHIGAN 1211 LP (*) 17 30+125 (150) 435+1812 (2175) 660 2.91 3000 1450 230-50 40 57/125 5365 h120 1 (120x80) 8.657.0601 MICHIGAN 1515 LP 17 30+150 435+2175 900 3.96 5000 1450 400-50 40 63/139 53x65 h120 1 (120x80) 8.657.0602 MICHIGAN 2015 LP 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 645/142 53x65 h120 1 (120x80) 8.657.0602 MICHIGAN 2015 LP (*) 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 64715 53x65 h120 1 (120x80) 8.657.0603 MICHIGAN 2015 LP (*) 17 30+200 435+2900 900 3.96 7000 1450 400-50 40 64715 53x65 h120 1 (120x80) 8.657.0603 MICHIGAN 2015 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 64715 53x65 h120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 72.3/159 53x65 h120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30+200 435+2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30+200 435+3400 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30+250 435+3600 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30+250 435+3600 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.662.0001 GARAGE 1211 LP 21 30+120(150) 435+1740(2175) 660 2.91 3000 1450 230-50 40 32.5771 60x38 h72 12(120x80) 8.662.0001 GARAGE 1211 LP 21 30+120(150) 435+1740(2175) 660 2.91 3000 1450 230-50 40 37/81 50x43 h56 20(120x80) 8.654.0073 COLUMBIA R 1515 LP 22 30+150 435+2715 900 3.96 7000 1450 400-50 40 59/130 55x62 h59 12 (120x100) 8.654.0073 COLUMBIA R 1515 LP 23 30+150 435+2715 900 3.96 7000 1450 400-50 40 59/130 55x62 h59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30+200 435+2900 900 3.96 7000 1450 400-50 40 59/130 55x62 h59 12 (120x100) 8.654.0031 HYPER C 2015 LP 23 30+200 435+2900 900 3.96 7000 1450 400-50 40 59/130 55x62 h59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30+200 435+2900 900 3.96 8500 1450 400-50 40 59/	8.659.0013	DANUBIO 2015 LP	16	30÷200	435÷2900	900	3.96	7000	1450	400 - 50	40	46/101	77x41 h 71	9(120x80)
8.657.0601 MICHIGAN 1515 LP 17 30÷150 435÷2175 900 3.96 5000 1450 400÷50 40 63/139 53x65 h120 1 (120x80) 8.657.0602 MICHIGAN 1515 LP (*) 17 30÷150 435÷2175 900 3.96 5000 1450 400÷50 40 64.5/142 53x65 h120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP (*) 17 30÷200 435÷2900 900 3.96 7000 1450 400÷50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP (*) 17 30÷200 435÷2900 900 3.96 7000 1450 400÷50 40 63/139 53x65 h120 1 (120x80) 8.657.0613 MICHIGAN 2012 LP (*) 17 30÷200 435÷2900 1260 5.55 9400 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.657.0633 MICHIGAN 2015 LP (*) 17 30÷200 435÷2900 1260 5.55 9400 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.657.0630 MICHIGAN 2015 LP (*) 17 30÷200 435÷2900 900 3.96 8500 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30÷250 435÷3600 900 3.96 8500 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30÷250 435÷3600 900 3.96 8500 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2015 LP (*) 17 30÷250 435÷3600 900 3.96 8500 1450 400÷50 40 73/161 53x65 h120 1 (120x80) 8.654.0001 MYSTIC 1309 XP 20 130 (150) 1885(2175) 540 2.38 2800 230÷50 40 32.5/71 60x38 h 72 12(120x80) 8.662.0001 GARAGE 1211 LP 21 30÷120 435÷1210 270 3.17 4000 1450 400÷50 40 37/81 50x43 h 56 20(120x80) 8.654.0073 COLUMBIA R 1211 LP 22 30÷120 435÷1210 435×1215 900 3.96 5000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 COLUMBIA R 7151 LP 22 30÷120 435×1215 900 3.96 5000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 1211 LP 23 30÷120 435×1215 900 3.96 5000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 1211 LP 23 30÷200 435×2900 900 3.96 7000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 1211 LP 23 30÷200 435×2900 900 3.96 7000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 1211 LP 23 30÷200 435×2900 900 3.96 7000 1450 400÷50 40 54/118 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 1211 LP 23 30÷200 435×2900 900 3.96 7000 1450 400÷50 40 54/118 55x62 h 59 12 (12	8.657.0606	MICHIGAN 1211 LP	17	30÷125(150)	435÷1812(2175)	660	2.91	3000	1450	230 - 50	40	55/121	53x65 h120	1 (120x80)
8.657.0609 MICHIGAN 1515 LP (*) 17 30±150 435±2175 900 3.96 5000 1450 400-50 40 64,5/142 53x65 h120 1 (120x80) 8.657.0602 MICHIGAN 2015 LP 17 30±200 435±2900 900 3.96 7000 1450 400-50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP (*) 17 30±200 435±2900 1260 5.55 9400 1450 400-50 40 63/139 53x65 h120 1 (120x80) 8.657.0633 MICHIGAN 2021 LP (*) 17 30±200 435±2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0613 MICHIGAN 2015 LP (*) 17 30±200 435±2900 1260 5.55 9400 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2515 LP (*) 17 30±250 435±3600 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2515 LP (*) 17 30±250 435±3600 900 3.96 8500 1450 400-50 40 73/161 53x65 h120 1 (120x80) 8.661.0001 MYSTIC 1309 XP 20 130 (150) 1885(2175) 540 2.38 2800 2800 2800 230-50 40 32.5/71 60x38 h 72 12(120x80) 8.662.0002 GARAGE 1211 LP 21 30±120(150) 435±1740(2175) 660 2.91 3000 1450 230-50 40 37/81 50x43 h 56 20(120x80) 8.654.0071 COLUMBIA R 1211 LP 22 30±120 435±1812 660 2.91 3000 1450 230-50 40 37/81 50x43 h 56 20(120x80) 8.654.0073 COLUMBIA R 71515 LP 22 30±150 435±2175 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 1211 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0031 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0031 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0031 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (120x100) 8.654.0031 HYPER C 2015 LP 23 30±200 435±2900 900 3.96 5000 1450 400-50 40 54/118 55x62 h 59 12 (	8.657.0619	MICHIGAN 1211 LP (*)	17	30÷125(150)	435÷1812(2175)	660	2.91	3000	1450	230 - 50	40	57/125	53x65 h120	1 (120x80)
8.657.0602 MICHIGAN 2015 LP 17 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 66/145 53x65 h120 1 (120x80) 8.657.0610 MICHIGAN 2015 LP (*) 17 30÷200 435÷2900 1260 5.55 9400 1450 400 50 40 72.3/159 53x65 h120 1 (120x80) 8.657.0613 MICHIGAN 2021 LP 17 30÷200 435÷2900 1260 5.55 9400 1450 400 50 40 72.3/159 53x65 h120 1 (120x80) 8.657.0611 MICHIGAN 2021 LP (*) 17 30÷200 435÷2900 1260 5.55 9400 1450 400 50 40 73.7/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2515 LP 17 30÷250 435÷3600 900 3.96 8500 1450 400 50 40 73.7/161 53x65 h120 1 (120x80) 8.657.0631 MICHIGAN 2515 LP (*) 17 30÷250 435÷3600 900 3.96 8500 1450 400 50 40 73.7/161 53x65 h120 1 (120x80) 8.661.0001 MYSTIC 1309 XP 20 130 (150) 1885(2175) 540 2.38 2800 2800 230 50 40 32.5/71 60x38 h72 12(120x80) 8.662.0002 GARAGE 1612 LP 21 30÷120 (150) 435÷1740(2175) 660 2.91 3000 1450 400 50 40 37/81 50x43 h 56 20(120x80) 8.654.0071 COLUMBIA R 1211 LP 22 30÷120 435÷211 2 660 2.91 3000 1450 400 50 40 37/81 50x43 h 56 20(120x80) 8.654.0073 COLUMBIA R 1211 LP 22 30÷120 435÷2190 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 COLUMBIA R 2015 LP 22 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 1211 LP 23 30÷120 435÷2175 900 3.96 5000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30÷20 435÷2900 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0073 HYPER C 2015 LP 23 30÷20 435÷2900 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 54/118 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 56/133 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 56/133 55x62 h 59 12 (120x100) 8.654.0033 HYPER C 2015 LP 23 30÷200 435÷2900 900 3.96 7000 1450 400 50 40 56/133 55x62 h 59 12 (120x100	8.657.0601	MICHIGAN 1515 LP	17	30÷150	435÷2175	900	3.96	5000	1450	400 - 50	40	63/139	53x65 h120	1 (120x80)
8.657.0610         MICHIGAN 2015 IP (*)         17         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         63/139         53x65 h120         1 (120x80)           8.657.0633         MICHIGAN 2021 IP (*)         17         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         72.3/159         53x65 h120         1 (120x80)           8.657.0630         MICHIGAN 2021 IP (*)         17         30÷250         435÷3600         900         3.96         8500         1450         400 - 50         40         73/161         53x65 h120         1 (120x80)           8.657.0631         MICHIGAN 2515 IP (*)         17         30÷250         435÷3600         900         3.96         8500         1450         400 - 50         40         73/161         53x65 h120         1 (120x80)           8.661.0001         MYSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800         2800         230 - 50         40         37/81         50x43 h 56         20(120x80)           8.662.0001         MSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800<	8.657.0609	MICHIGAN 1515 LP (*)	17	30÷150	435÷2175	900	3.96	5000	1450	400 - 50	40	64.5/142	53x65 h120	1 (120x80)
8.657.0603         MICHIGAN 2021 LP         17         30±200         435±2900         1260         5.55         9400         1450         400-50         40         72.3/159         53x65 h120         1 (120x80)           8.657.0611         MICHIGAN 2021 LP (*)         17         30±200         435±2900         1260         5.55         9400         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.657.0631         MICHIGAN 2515 LP (*)         17         30±250         435±3600         900         3.96         8500         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.657.0631         MICHIGAN 2515 LP (*)         17         30±250         435±3600         900         3.96         8500         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.667.0031         MICHIGAN 2515 LP (*)         17         30±250         435±3600         900         3.96         8500         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.667.0031         MICHIGAN 2515 LP         20         130 (150)         1885(2175)         540         2.38         2800	8.657.0602	MICHIGAN 2015 LP	17	30÷200	435÷2900	900	3.96	7000	1450	400 - 50	40	66/145	53x65 h120	1 (120x80)
8.657.0611         MICHIGAN 2021 LP (*)         17         30±200         435±2900         1260         5.55         9400         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.657.0630         MICHIGAN 2515 LP         17         30±250         435±3600         900         3.96         8500         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.657.0631         MICHIGAN 2515 LP (*)         17         30±250         435±3600         900         3.96         8500         1450         400-50         40         73/161         53x65 h120         1 (120x80)           8.661.0001         MYSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800         2800         230-50         40         32,5/71         60x38 h72         12(120×80)           8.662.0001         GARAGE 1211 LP         21         30±120(150)         435±2320         720         3.17         4000         1450         400-50         40         37/81         50x43 h 56         20(120x80)           8.654.0071         COLUMBIA R 1211 LP         22         30±120         435±1812         660         2.91         3000	8.657.0610	MICHIGAN 2015 LP (*)	17	30÷200	435÷2900	900	3.96	7000	1450	400 - 50	40	63/139	53x65 h120	1 (120x80)
8.657.0630         MICHIGAN 2515 LP         17         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         73/161         53×65 h120         1 (120×80)           8.657.0631         MICHIGAN 2515 LP (*)         17         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         73/161         53×65 h120         1 (120×80)           8.661.0001         MYSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800         2800         230·50         40         32.5/71         60×38 h 72         12(120×80)           8.662.0001         GARAGE 1211 LP         21         30÷120 (150)         435÷1740(2175)         660         2.91         3000         1450         230·50         40         37/81         50×43 h 56         20(120×80)           8.662.0002         GARAGE 1612 LP         21         30÷160         435÷2320         720         3.17         4000         1450         400·50         40         37/81         50×43 h 56         20(120×80)           8.654.0071         COLUMBIA R 1211 LP         22         30÷120         435÷1812         660         2.91         3000	8.657.0603	MICHIGAN 2021 LP	17	30÷200	435÷2900	1260	5.55	9400	1450	400 - 50	40	72.3/159	53x65 h120	1 (120x80)
8.657.0630         MICHIGAN 2515 LP         17         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         73/161         53×65 h120         1 (120×80)           8.657.0631         MICHIGAN 2515 LP (*)         17         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         73/161         53×65 h120         1 (120×80)           8.661.0001         MYSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800         2800         230·50         40         32.5/71         60×38 h 72         12(120×80)           8.662.0001         GARAGE 1211 LP         21         30÷120 (150)         435÷1740(2175)         660         2.91         3000         1450         230·50         40         37/81         50×43 h 56         20(120×80)           8.662.0002         GARAGE 1612 LP         21         30÷160         435÷2320         720         3.17         4000         1450         400·50         40         37/81         50×43 h 56         20(120×80)           8.654.0071         COLUMBIA R 1211 LP         22         30÷120         435÷1812         660         2.91         3000	8.657.0611	MICHIGAN 2021 LP (*)	17	30÷200	435÷2900	1260	5.55	9400	1450	400 - 50	40	73/161	53x65 h120	1 (120x80)
8.657.0631         MICHIGAN 2515 LP (*)         17         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         73/161         53x65 h120         1 (120x80)           8.661.0001         MYSTIC 1309 XP         20         130 (150)         1885(2175)         540         2.38         2800         2800         230·50         40         32.5/71         60x38 h72         12(120×80)           8.662.0001         GARAGE 1211 LP         21         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         230·50         40         37/81         50x43 h 56         20(120x80)           8.662.0002         GARAGE 1612 LP         21         30÷160         435÷2320         720         3.17         4000         1450         400·50         40         37/81         50x43 h 56         20(120x80)           8.654.0071         COLUMBIA R 1211 LP         22         30÷120         435÷1812         660         2.91         3000         1450         400·50         40         40/88         55x62 h 59         12 (120x100)           8.654.0072         COLUMBIA R 1515 LP         22         30÷20         435÷2175         900         3.96         7000	8.657.0630	MICHIGAN 2515 LP	17	30÷250	435÷3600	900	3.96	8500	1450	400 - 50	40	73/161		1 (120x80)
8.662.0001         GARAGE 1211 LP         21         30±120(150)         435±1740(2175)         660         2.91         3000         1450         230-50         40         37/81         50x43 h 56         20(120x80)           8.662.0002         GARAGE 1612 LP         21         30±160         435±2320         720         3.17         4000         1450         400-50         40         37/81         50x43 h 56         20(120x80)           8.654.0071         COLUMBIA R 1211 LP         22         30±120         435±1812         660         2.91         3000         1450         230-50         40         40/88         55x62 h 59         12 (120x100)           8.654.0073         COLUMBIA R 1515 LP         22         30±150         435±2175         900         3.96         5000         1450         400-50         40         54/118         55x62 h 59         12 (120x100)           8.654.0072         COLUMBIA R 2015 LP         22         30±200         435±2900         900         3.96         7000         1450         400-50         40         54/118         55x62 h 59         12 (120x100)           8.654.0073         HYPER C 1211 LP         23         30±125         435±1812         660         2.91         3000         1		MICHIGAN 2515 LP (*)	17	30÷250	435÷3600	900	3.96	8500	1450	400 - 50	40	73/161	53x65 h120	1 (120x80)
8.662.0001         GARAGE 1211 LP         21         30±120(150)         435±1740(2175)         660         2.91         3000         1450         230-50         40         37/81         50x43 h 56         20(120x80)           8.662.0002         GARAGE 1612 LP         21         30±160         435±2320         720         3.17         4000         1450         400-50         40         37/81         50x43 h 56         20(120x80)           8.654.0071         COLUMBIA R 1211 LP         22         30±120         435±1812         660         2.91         3000         1450         230-50         40         40/88         55x62 h 59         12 (120x100)           8.654.0073         COLUMBIA R 1515 LP         22         30±150         435±2175         900         3.96         5000         1450         400-50         40         54/118         55x62 h 59         12 (120x100)           8.654.0072         COLUMBIA R 2015 LP         22         30±200         435±2900         900         3.96         7000         1450         400-50         40         54/118         55x62 h 59         12 (120x100)           8.654.0073         HYPER C 1211 LP         23         30±125         435±1812         660         2.91         3000         1	8.661.0001	MYSTIC 1309 XP	20	130 (150)	1885(2175)	540	2.38	2800	2800	230 - 50	40	32.5/71	60x38 h 72	12(120-80)
8.654.0071         COLUMBIA R 1211 LP         22         30÷120         435÷1812         660         2.91         3000         1450         230·50         40         40/88         55x62 h 59         12 (120x100)           8.654.0073         COLUMBIA R 1515 LP         22         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         54/118         55x62 h 59         12 (120x100)           8.654.0072         COLUMBIA R 2015 LP         22         30÷200         435÷2900         900         3.96         7000         1450         400·50         40         54/118         55x62 h 59         12 (120x100)           8.654.0074         HYPER C 1211 LP         23         30÷125         435÷1812         660         2.91         3000         1450         400·50         40         60.5/133         55x62 h 59         12 (120x100)           8.654.0033         HYPER C 1515 LP         23         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         50/110         55x62 h 59         12 (120x100)           8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         14	8.662.0001	GARAGE 1211 LP	21	30÷120(150)	435÷1740(2175)	660	2.91	3000	1450	230 - 50	40	37/81	50x43 h 56	20(120x80)
8.654.0071         COLUMBIA R 1211 LP         22         30÷120         435÷1812         660         2.91         3000         1450         230·50         40         40/88         55x62 h 59         12 (120x100)           8.654.0073         COLUMBIA R 1515 LP         22         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         54/118         55x62 h 59         12 (120x100)           8.654.0072         COLUMBIA R 2015 LP         22         30÷200         435÷2900         900         3.96         7000         1450         400·50         40         54/118         55x62 h 59         12 (120x100)           8.654.0074         HYPER C 1211 LP         23         30÷125         435÷1812         660         2.91         3000         1450         400·50         40         60.5/133         55x62 h 59         12 (120x100)           8.654.0033         HYPER C 1515 LP         23         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         50/110         55x62 h 59         12 (120x100)           8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         14	8.662.0002	GARAGE 1612 LP	21	30÷160	435÷2320	720	3.17	4000	1450	400 - 50	40	37/81	50x43 h 56	20(120x80)
8.654.0072         COLUMBIA R 2015 LP         22         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         54/118         55x62 h 59         12 (120x100)           8.654.0074         HYPER C 1211 LP         23         30÷125         435÷1812         660         2.91         3000         1450         230 - 50         40         60.5/133         55x62 h 59         12 (120x100)           8.654.0033         HYPER C 1515 LP         23         30÷150         435÷2175         900         3.96         5000         1450         400 - 50         40         50/110         55x62 h 59         12 (120x100)           8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         59/130         55x62 h 59         12 (120x100)           8.654.0031         HYPER C 2021 LP         23         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         62/136         55x62 h 59         12 (120x100)           8.654.0053         HYPER C 2515 LP         23         30÷250         435÷3600         900         3.96         8500	8.654.0071	COLUMBIA R 1211 LP	22	30÷120	435÷1812	660	2.91	3000	1450	230 - 50	40	40/88	55x62 h 59	12 (120x100)
8.654.0074         HYPER C 1211 LP         23         30÷125         435÷1812         660         2.91         3000         1450         230·50         40         60.5/133         55x62 h 59         12 (120x100)           8.654.0033         HYPER C 1515 LP         23         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         50/110         55x62 h 59         12 (120x100)           8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         1450         400·50         40         59/130         55x62 h 59         12 (120x100)           8.654.0031         HYPER C 2021 LP         23         30÷200         435÷2900         1260         5.55         9400         1450         400·50         40         62/136         55x62 h 59         12 (120x100)           8.654.0053         HYPER C 2515 LP         23         30÷250         435÷3600         900         3.96         8500         1450         400·50         40         63/139         55x62 h 59         12 (120x100)           8.626.0001         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000	8.654.0073	COLUMBIA R 1515 LP	22	30÷150	435÷2175	900	3.96	5000	1450	400 - 50	40	54/118	55x62 h 59	12 (120x100)
8.654.0033       HYPER C 1515 LP       23       30÷150       435÷2175       900       3.96       5000       1450       400 - 50       40       50/110       55x62 h 59       12 (120x100)         8.654.0023       HYPER C 2015 LP       23       30÷200       435÷2900       900       3.96       7000       1450       400 - 50       40       59/130       55x62 h 59       12 (120x100)         8.654.0031       HYPER C 2021 LP       23       30÷200       435÷2900       1260       5.55       9400       1450       400 - 50       40       62/136       55x62 h 59       12 (120x100)         8.654.0053       HYPER C 2515 LP       23       30÷250       435÷3600       900       3.96       8500       1450       400 - 50       40       63/139       55x62 h 59       12 (120x100)         8.626.0001       MCHPV 1211 LP       24       30÷120(150)       435÷1740(2175)       660       2.91       3000       1450       400 - 50       40       44/97       75x50 h 35       9(120x80)         8.626.0002       MCHPV 1515 LP       24       30÷150       435÷275       900       3.96       5000       1450       400 - 50       40       45/99       75x50 h 35       9(120x80)	8.654.0072	COLUMBIA R 2015 LP	22	30÷200	435÷2900	900	3.96	7000	1450	400 - 50	40	54/118	55x62 h 59	12 (120x100)
8.654.0033         HYPER C 1515 LP         23         30÷150         435÷2175         900         3.96         5000         1450         400 - 50         40         50/110         55x62 h 59         12 (120x100)           8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         59/130         55x62 h 59         12 (120x100)           8.654.0031         HYPER C 2021 LP         23         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         62/136         55x62 h 59         12 (120x100)           8.654.0033         HYPER C 2515 LP         23         30÷250         435÷3600         900         3.96         8500         1450         400 - 50         40         63/139         55x62 h 59         12 (120x100)           8.626.0001         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         400 - 50         40         64/97         75x50 h 35         9(120x80)           8.626.0002         MCHPV 1515 LP         24         30÷150         435÷2775         900         3.96         5000 <t< td=""><td>8.654.0074</td><td>HYPER C 1211 LP</td><td>23</td><td>30÷125</td><td>435÷1812</td><td>660</td><td>2.91</td><td>3000</td><td>1450</td><td>230 - 50</td><td>40</td><td>60.5/133</td><td>55x62 h 59</td><td>12 (120x100)</td></t<>	8.654.0074	HYPER C 1211 LP	23	30÷125	435÷1812	660	2.91	3000	1450	230 - 50	40	60.5/133	55x62 h 59	12 (120x100)
8.654.0023         HYPER C 2015 LP         23         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         59/130         55x62 h 59         12 (120x100)           8.654.0031         HYPER C 2021 LP         23         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         62/136         55x62 h 59         12 (120x100)           8.654.0053         HYPER C 2515 LP         23         30÷250         435÷3600         900         3.96         8500         1450         400 - 50         40         63/139         55x62 h 59         12 (120x100)           8.626.0001         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         400 - 50         40         63/139         55x62 h 59         12 (120x100)           8.626.0002         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         230 - 50         40         44/97         75x50 h 35         9(120x80)           8.626.0002         MCHPV 1515 LP         24         30÷150         435÷2900         90         3.96         5000		HYPER C 1515 LP	23	30÷150	435÷2175	900	3.96	5000	1450	400 - 50	40	- '	55x62 h 59	
8.654.0031         HYPER C 2021 LP         23         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         62/136         55x62 h 59         12 (120x100)           8.654.0053         HYPER C 2515 LP         23         30÷250         435÷3600         900         3.96         8500         1450         400 - 50         40         63/139         55x62 h 59         12 (120·100)           8.626.0001         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         230 - 50         40         44/97         75x50 h 35         9(120x80)           8.626.0002         MCHPV 1515 LP         24         30÷150         435÷2175         900         3.96         5000         1450         400 - 50         40         45/99         75x50 h 35         9(120x80)           8.626.0003         MCHPV 2015 LP         24         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         48/105         75x50 h 35         9(120x80)           8.626.0004         MCHPV 2021 LP         24         30÷200         435÷2900         1260         5.55         9400         1450 <td></td> <td>HYPER C 2015 LP</td> <td>23</td> <td>30÷200</td> <td>435÷2900</td> <td>900</td> <td>3.96</td> <td>7000</td> <td>1450</td> <td>400 - 50</td> <td>40</td> <td></td> <td>55x62 h 59</td> <td></td>		HYPER C 2015 LP	23	30÷200	435÷2900	900	3.96	7000	1450	400 - 50	40		55x62 h 59	
8.654.0053       HYPER C 2515 LP       23       30÷250       435÷3600       900       3.96       8500       1450       40 - 50       40       63/139       55x62 h 59       12 (120-100)         8.626.0001       MCHPV 1211 LP       24       30÷120(150)       435÷1740(2175)       660       2.91       3000       1450       230 - 50       40       44/97       75x50 h 35       9(120x80)         8.626.0002       MCHPV 1515 LP       24       30÷150       435÷2175       900       3.96       5000       1450       400 - 50       40       45/99       75x50 h 35       9(120x80)         8.626.0003       MCHPV 2015 LP       24       30÷200       435÷2900       900       3.96       7000       1450       400 - 50       40       48/105       75x50 h 35       9(120x80)         8.626.0004       MCHPV 2021 LP       24       30÷200       435÷2900       1260       5.55       9400       1450       400 - 50       40       60/132       75x50 h 35       9(120x80)	8.654.0031	HYPER C 2021 LP	23	30÷200	435÷2900	1260	5.55	9400	1450	400 - 50	40	62/136	55x62 h 59	
8.626.0001         MCHPV 1211 LP         24         30÷120(150)         435÷1740(2175)         660         2.91         3000         1450         230·50         40         44/97         75x50 h 35         9(120x80)           8.626.0002         MCHPV 1515 LP         24         30÷150         435÷2175         900         3.96         5000         1450         400·50         40         45/99         75x50 h 35         9(120x80)           8.626.0003         MCHPV 2015 LP         24         30÷200         435÷2900         900         3.96         7000         1450         400·50         40         48/105         75x50 h 35         9(120x80)           8.626.0004         MCHPV 2021 LP         24         30÷200         435÷2900         1260         5.55         9400         1450         400·50         40         60/132         75x50 h 35         9(120x80)											_			
8.626.0002       MCHPV 1515 LP       24       30÷150       435÷2175       900       3.96       5000       1450       400 - 50       40       45/99       75x50 h 35       9(120x80)         8.626.0003       MCHPV 2015 LP       24       30÷200       435÷2900       900       3.96       7000       1450       400 - 50       40       48/105       75x50 h 35       9(120x80)         8.626.0004       MCHPV 2021 LP       24       30÷200       435÷2900       1260       5.55       9400       1450       400 - 50       40       60/132       75x50 h 35       9(120x80)	-		-								_			
8.626.0003         MCHPV 2015 LP         24         30÷200         435÷2900         900         3.96         7000         1450         400 - 50         40         48/105         75x50 h 35         9(120x80)           8.626.0004         MCHPV 2021 LP         24         30÷200         435÷2900         1260         5.55         9400         1450         400 - 50         40         60/132         75x50 h 35         9(120x80)	-		_								-			
8.626.0004 MCHPV 2021 LP 24 30÷200 435÷2900 1260 5.55 9400 1450 400 · 50 40 60/132 75x50 h 35 9(120x80)														
			24								40			
0.051.UIUI   UIIU 551/ LF   Z5   50÷550   455÷50/6   10Z0   4.47   11UUU   1450   40U-50   40   14//3Z4   113X/1 h 111   1 (1/UX8U)	8.651.0101	OHIO 3317 LP	25	30÷350	435÷5076	1020	4.49	11000	1450	400 - 50	40	147/324	113x71 h 111	1 (120x80)

# Cold water high-pressure cleaner

















Ohio 3317 LP

Utah 5015 LP

Thermic 5H

Thermic 9

Thermic 10 D

Thermic 11H

Thermic 13H

		Page	Operating pressure (max pressure)	Operating pressure (max pressure)	Delivery rate	Delivery rate	Absorbed power	RPM	Voltage	Max inlet water temperature	Weight with packaging	Packaging	Pieces for pallet
Code	Model		bar (max bar)	psi (max psi)	l/h	GPM	W	RPM	V - Hz	°C	Kg/lbs	cm	n°(cm x cm)
8.632.0001	UTAH 5015 LP	26	30÷500	435÷7250	900	3.96	15000	1450	400 - 50	40	281/614	124x84 h 112	1 (120x80)
8.601.0107	THERMIC 5H	27	30÷160	435÷2320	570	2.51	5 hp	3000	-	40	37.5/83	54.5x54.5 h 69.5	8 (120x80)
8.601.0134C	THERMIC 9	28	30÷200	435÷2900	780	3.44	9 hp	3400	-	40	53/116	70x57 h 70	9 (120x80)
8.601.0111	THERMIC 10 D	29	30÷180	435÷2465	1020	4.49	10 hp	1600	-	40	95/209	113x71 h 110	1 (120x80)
8.601.0115	THERMIC 11H	30	30÷200	435÷2900	1080	4.76	11 hp	1700	-	40	95/209	103x73 h 100	1 (120x80)
8.601.0133	THERMIC 13H 2518	31	30÷250	435÷3625	1080	4.76	13cv	1700	-	40	95/209	103x73 h 100	1 (120x113)



### Special voltage 220V & 380V~60 Hz

8.613.0005	LMX 1211M	12	100 (120)	1450 (1740)	450÷780	1.98÷3.44	3300	3400	220~60	40	32/70	60x37,5 h 72	12(120x80)
8.613.0026	LMX 160M	12	160 (200)	2320 (2900)	325÷510	1.43÷2.25	3300	1700	220~60	40	36/79	60x37,5 h 72	12(120x80)
8.613.0014	LMX 170T	12	50÷170	725÷2465	350÷800	1.54÷3.52	4700	1700	3ph 220~60	40	30/66	60x37,5 h 72	12(120x80)
8.613.0034	LMX 170T	12	50÷170	725÷2465	350÷800	1.54÷3.52	4700	1700	380~60	40	30/66	60x37,5 h 72	12(120x80)
8.665.0004	ARIZONA 1209	13	120 (150)	1740(2175)	345÷510	1.52÷2.23	2300	1700	220 - 60	40	30.5/67	60x37,5 h 72	12(120-80)
8.659.0002	DANUBIO 1211	15	120 (150)	1740÷2175	345÷660	1.52÷2.91	3000	1700	220~60	40	35/77	77x41 h 71	9(120x80)
8.659.0010	DANUBIO 1511	15	30÷150	435÷2175	345÷660	1.52÷2.91	4000	1700	3ph 220~60	40	35/77	77x41 h 71	9(120x80)
8.659.0027	DANUBIO 1511	15	30÷150	435÷2175	345÷660	1.52÷2.91	4000	1700	380~60	40	35/77	77x41 h 71	9(120x80)
8.659.0026	DANUBIO 2013	16	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	3ph 220~60	40	46/101	77x41 h 71	9(120x80)
8.659.0028	DANUBIO 2013	16	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	380~60	40	46/101	77x41 h 71	9(120x80)
8.657.0608	MICHIGAN 1211	17	120 (150)	1740÷2175	345÷660	1.52÷2.91	3000	1700	220~60	40	55/121	53x65 h 120	1(120x80)
8.657.0612	MICHIGAN 2013	17	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	3ph 220~60	40	64/141	53x65 h 120	1(120x80)
8.657.0621	MICHIGAN 2013	17	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	380~60	40	66/145	53x65 h 120	1(120x80)
8.657.0622	MICHIGAN 2018	17	200 (230)	2900÷3335	540÷1080	2.38÷4.78	8400	1700	220~60	40	72.3/159	53x65 h 120	1(120x80)
8.663.0003	GARAGE 1211	21	100 (120)	1450 (1740)	450÷780	1.98÷3.44	3300	1700	220~60	40	27/59	105x40 h 42	20(120x80)
8.654.0012	COLUMBIA R 1211	22	100 (120)	1450 (1740)	450÷780	1.98÷3.44	3300	1700	220~60	40	45/99	55x62 h 59	12(120X100)
8.654.0014	COLUMBIA R 2018	22	30÷200	435÷2900	540÷1080	2.38÷4.78	8400	1700	3ph 220~60	40	43.5/96	55x62 h 59	12(120X100)
8.654.0009	COLUMBIA R 2018	22	30÷200	435÷2900	540÷1080	2.38÷4.78	8400	1700	380~60	40	49/108	55x62 h 59	12(120X100)
8.654.0049	COLUMBIA R 2013	22	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	3ph 220~60	40	51/112	55x62 h 59	12(120X100)
8.654.0050	COLUMBIA R 2013	22	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	380~60	40	51/112	55x62 h 59	12(120X100)
8.626.0009	MCHPV 1211	24	120 (150)	1740÷2175	345÷660	1.52÷2.91	3000	1700	220~60	40	40/88	75x50 h 35	9(120X80)
8.626.0020	MCHPV 1213	24	120 (150)	1740÷2175	450÷780	1.98÷3.44	3000	1700	220~60	40	44/97	75x50 h 35	9(120X80)
8.656.0021	MCHPV 2013	24	200 (230)	2900÷3335	450÷780	1.98÷3.44	6800	1700	3ph 220~60	40	57.5/127	75x50 h 35	9(120X80)
8.626.0010	MCHPV 2018	24	30÷200	435÷2900	540÷1080	2.38÷4.78	8400	1700	380~60	40	58/128	75x50 h 35	9(120X80)
8.626.0022	MCHPV 2018	24	30÷200	435÷2900	540÷1080	2.38÷4.78	8400	1700	3ph 220~60	40	60/132	75x50 h 35	9(120X80)



### **VANGUARD LINE**

Efficiency, reliability, safety and ease of use are the basic factors for a careful selection of a professional product. On the ground of these standards, Lavor PRO has conceived professional line high-pressure cleaners, in order to match, through high-tech products, perfect hygiene and clean with time/labour saving.

### Being Manufacturers: from experience to knowledge

In the high-pressure cleaners market companies are divided in those who buy components to assemble products and manufacturers, who have a continuous R&D on all product components.

Lavorwash manufactures all the high-pressure cleaners components entirely and this allows: to spread product knowledge, culture and experience inside the company; to check the entire manufacturing cycle; to adopt possible improvements immediately; better sensitivity to market request adjusting product range design in real time.

### What high pressure cleaner? Is it better pressure or delivery rate?

The right criteria to define the high-pressure cleaner performances is the washing effectiveness.

The elements that influence this value are: delivery rate (water volume processed by the pump in a unity of time) and pressure (I/h water power on a surface). The higher the delivery rate, the faster the washing phase (less rinsing time); the higher the pressure, the



deeper the washing (better dirt degreasing). It is often emphasized the pressure only (also because the pump size and the consequent manufacturing cost are cheaper), but delivery rate is as important as pressure.

### What pump? Is it better a linear (crankshaft) or an axial one?

It does not exist a winning technology, because both solution can provide same performances and lifetime. What determines the pump

### Cold water high-pressure cleaner Vanguard line



quality is the quality of the project itself (linear or axial) and of the components used; for this reason Lavorwash decided to develop both technologies, taking into consideration a design that grants margin of safety and reliability.

### What design? Is it better horizontal or vertical construction?

The design of a cold water high-pressure cleaner can have an horizontal development (ex. DANUBIO) or a vertical one (ex. MICHIGAN) and also the pump position follows the orientation of the structure.

The vertical development is much more ergonomic for the user, because machine moving and storing after use are much easier, but these benefits raise manufacturing cost.

The horizontal development allows an easier pump service if needed, better stability and a lower manufacturing cost.

• Linear pump:

The movement of the (3) pistons

CRANKSHAFT occur through a system of connecting
rods and crankshaft. The longitudinal axle of
the pistons (placed at the same level or linear) is
perpendicular to the motor rotation axle. It is more
versatile to bear high delivery rates (from 21 I/
min) and it has a better self priming.

Releasing the gun trigger the pump stops automatically avoiding element damages during the by-pass phase. Pulling the trigger, the high-pressure cleaner starts automatically. Max pump protection.

Total Stop:

Low volted Total Stop:

1450

 Low voltage and delayed Total Stop:

Total Stop 24V To avoid quick and multiple start and shut down of the motor/pump group whenever the gun trigger is pulled and released, this disposal delays of about 15 seconds the machine shut down. Prevention, energy saving, top safety and pump longer life.

• Motor low rotation speed:

The electric motor transfers the same number of revolutions to

the pump. With a 4 poles motor there is a lower rotation speed of the components (1400 RPM in case of 50Hz or 1750 RPM in case of 60 Hz) granting longer pump life. Extending lifetime solution.

• Water co

• Water cooled motor:

Water flows through the S/S coil around the motor, this allows a better thermal exchange (and so a cooling) than air also in those countries where inlet water could reaches 60°C. This allows a drop in operating temperature

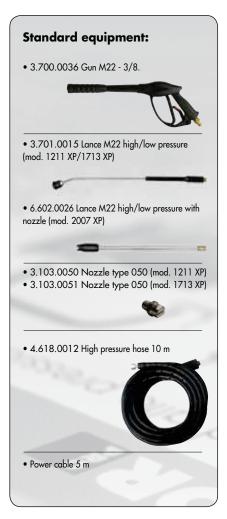
of the motor and pump mechanical elements, granting a better reliability and longer life.

WATER



### **LMX XP**





### **Equipped with:**

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve.
- Low voltage and delayed Total Stop (three phase model). Suction and delivery S/S valves. Detergent built-in tank for indirect suction. Pressure regulator. Glicerine pressure gauge. Hose reel. Accessory holder. Ergonomic handle.



**AVAILABLE**DETAILS PAGE 9

**Optional:** 

	LMX 1211 XP	LMX 2007 XP	LMX 1713 XP
code	8.613.0001	8.613.0015	8.613.0028
operat. pressure/max	120/150 bar-1740/2175 psi	200/220 bar-2900/3190 psi	170/200 bar-1740/2900 psi
delivery rate	660 l/h-2.91 GPM	420 l/h-1.85 GPM	780 l/h-3.43 GPM
abs. power/voltage	3300W - 230V~50Hz 1 ph	3300W - 230V~50Hz 1 ph	4700W-400V~50Hz 3ph
motorpump type/RPM	MPBX2/2800 RPM	MPBX2/2800 RPM	MPBX2/2800 RPM
max. water inlet temperature	40 °C	40 °C	40 °C
dimension/weight	59x37x87cm / 28 Kg - 61,6 lbs	59x37x87cm / 28 Kg - 61,6 lbs	59x37x87cm / 28 Kg - 61,6 lbs





### **Standard equipment:**

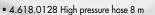
• 6.001.0089 Gun S'09 M22 with quick connection



• 6.002.0322 Lance M22.



- 5.012.0281 High pressure nozzle set (mod. 1209 LP)
- 5.012.0401 High pressure nozzle set (mod. 1311 LP)





• Power cable 5 m

### Available versions:

Code: **8.665.0011** 

Arizona 1209 LP **with hose reel** (10 m high pressure hose code 4.618.0053)

Code: **8.665.0010** 

Arizona 1311 LP **with hose reel** (10 m high pressure hose code 4.618.0053)



### **Equipped with:**

• 4 poles electrical motor (1450 RPM) with thermal protection. • Three ceramic coated pistons, brass linear pump head with built-in by-pass valve. • Suction and delivery S/S valves. • Detergent built-in tank for indirect suction. • Pressure regulator.

• Glicerine pressure gauge. • Hose reel **(optional)**. • Accessory holder. • Hose-holder. • Ergonomic handle.

	Arizona 1209 LP	Arizona 1311 LP
code	8.665.0001	8.665.0006
operat. pressure/max	120/150 bar-1740/2175 psi	130/150 bar-1885/2175 psi
delivery rate	510 l/h-2.23 GPM	660 l/h-2.90 GPM
abs. power/voltage	2300W - 230V~50Hz 1 ph	2900W - 230V~50Hz 1 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM
max. water inlet temperature	40 °C	40 °C
dimension/weight	59x37x87cm / 26 Kg - 57 lbs	59x37x87cm / 28 Kg - 61 lbs







- 4 poles electrical motor (1450 RPM) with thermal protection. Three ceramic coated pistons, brass linear pump head with built-in by-pass valve. Suction and delivery S/S valves. Detergent built-in tank for indirect suction. Pressure regulator.
- Glicerine pressure gauge. Accessory holder. Hose-holder. Ergonomic handle.

operat. pressure/max	8.665.0017 130/150 bar-1885/2175 psi	8.665.0022
	130/150 har-1885/2175 psi	
delivery rate	100/ 100 bai 1000/ 21/ 5 psi	150/160 bar-2175/2320 psi
	660 l/h-2.90 GPM	600 l/h-2.64 GPM
abs. power/voltage	2900W - 230V~50Hz 1 ph	2900W - 230V~50Hz 1 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM
max. water inlet temperature	40 °C	40 °C
dimension/weight	59x37x87cm / 28 Kg - 61 lbs	59x37x87cm / 28 Kg - 61 lbs





# • 3.700.0036 Gun M22 - 3/8. • 3.701.0015 Lance M22 high/low pressure • 3.103.0050 Nozzle type 045 (mod. 1211 LP) • 3.103.0047 Nozzle type 030 (mod. 1510 LP) • 4.618.0049 High pressure hose 8 m

### **Optional:**

• Power cable 5 m

• 6.608.0021 High-pressure hose reel with10 m h.p. hose



- 4 poles electrical motor (1450 RPM) with thermal protection Three ceramic coated pistons, brass linear pump head with built-in by-pass valve. Suction and delivery S/S valves. Detergent built-in tank for indirect suction. Pressure regulator.
- Glicerine pressure gauge. Hose reel **(optional)**. Accessory holder. Power cable holder. Ergonomic handle.

	Danubio 1211 LP	Danubio 1510 LP
code	8.659.0001	8.659.0009
operat. pressure/max	120/150 bar-1740/2175 psi	150/160 bar-2175/2320 psi
delivery rate	660 l/h-2.91 GPM	540 l/h-2.38 GPM
abs. power/voltage	3000W - 230V~50Hz 1 ph	3000W - 230V~50Hz 1 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM
max. water inlet temperature	40 °C	40 °C
dimension/weight	76x41x75cm / 33 kg - 72,6 lbs	76x41x75cm / 33 kg - 72,6 lbs





# • 3.700.0030 Gun M22 - 3/8 with rotating coupling). • 3.701.0015 Lance M22 high/low pressure • 3.103.0052 Nozzle type 055 (mod. 1515 LP) • 3.103.0050 Nozzle type 045 (mod. 2015 LP)

• 4.618.0143 High pressure hose 10 m

### Optional:

• Power cable 5 m

• 6.608.0021 High-pressure hose reel with10 m h.p. hose



- 4 poles electrical motor (1450 RPM) with thermal protection and water cooling.
- Three full ceramic pistons, brass linear pump head with built-in by-pass valve.
- Suction and delivery S/S valves. Low voltage and delayed Total Stop Detergent built-in tank for indirect suction. Pressure regulator. Glicerine pressure gauge.
- Hose reel **(optional)**. Accessory holder. Power cable holder. Ergonomic handle.

	Danubio 1515 LP	Danubio 2015 LP
code	8.659.0012	8.659.0013
operat. pressure/max	150 bar-2175 psi	200 bar-2900 psi
delivery rate	900 l/h-3.96 GPM	900 l/h-3.96 GPM
abs. power/voltage	5000W - 400V~50Hz 3 ph	7000W - 400V~50Hz 3 ph
motorpump type/RPM	MPW3/1450 RPM	MPW3/1450 RPM
max. water inlet temperature	40 °C	40 °C
dimension/weight	76x41x75cm / 42 kg - 92,4 lbs	76x41x75cm / 44 kg - 96,8 lbs

### Cold water high-pressure cleaner Vanguard line



### Michigan LP



Models: 1211 LP



Models: 1515 LP/2015 LP 2021 LP/2515 LP







Models: 1515 LP/2015 LP 2021 LP/2515 LP



### **Equipped with:**

• 4 poles electrical motor (1450 RPM) with thermal protection and water cooling (three phase models). • Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. • Low voltage and delayed Total Stop (three phase model). • Suction and delivery S/S valves. • Detergent built-in tank for indirect suction (1,6 lt.). • Pressure regulator. • Glicerine pressure gauge. • Hose reel (optional). • Accessory holder. • Power cable holder. • Ergonomic handle.

### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0044 Lance 900 mm with quick connection.

- 3.103.0050 Nozzle type 045 (mod. 1211 LP/2015 LP)
- 3.103.0052 Nozzle type 055 (mod. 1515 LP)
- 3.103.0055 Nozzle type 070 (mod. 2021 LP)
- 3.103.0049 Nozzle type 040 (mod. 2515 LP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m

### **Optional:**

**8.657.0619** - Michigan 1211LP with high-pressure hose reel

**8.657.0609** - Michigan 1515 LP with high-pressure hose reel

**8.657.0610** - Michigan 2015 LP with high-pressure hose reel

**8.657.0611** - Michigan 2021 LP with high-pressure hose reel

**8.657.0631** - Michigan 2515 LP with high-pressure hose reel



	MICHIGAN 1211 LP	MICHIGAN 1515 LP	MICHIGAN 2015 LP	MICHIGAN 2021 LP	MICHIGAN 2515 LP
code	8.657.0606	8.657.0601	8.657.0602	8.657.0603	8.657.0630
operat. pressure	120 bar-1740 psi	150 bar-2175 psi	200 bar-2900 psi	200 bar-2900 psi	250 bar-3600 psi
delivery rate	660 l/h-2.91GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM	900 l/h-3.96 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	5000W - 400V~50Hz 3ph	7000W - 400V~50Hz 3ph	9400W - 400V~50Hz 3ph	8500W - 400V~50Hz 3ph
pump type/RPM	MP3/1450 RPM	MPW3/1450 RPM	MPW3/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. water inlet temperature	40 °C				
dimension/weight	60x55x107cm / 52 Kg - 114 lbs	60x55x107cm / 60 Kg - 132 lbs	60x55x107cm / 63 Kg - 140 lbs	60x55x107cm / 69 Kg - 152 lbs	60x55x107cm / 70 Kg - 154 lbs

### HERITAGE LINE

Efficiency, reliability, safety and ease of use are the basic factors for a careful selection of a professional product. On the ground of these standards, Lavor PRO has conceived professional line high-pressure cleaners, in order to match, through high-tech products, perfect hygiene and clean with time/labour saving.



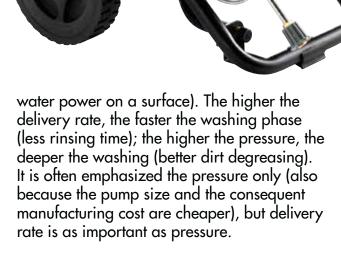
In the high-pressure cleaners market companies are divided in those who buy components to assemble products and manufacturers, who have a continuous R&D on all product components.

Lavorwash manufactures all the high-pressure cleaners components entirely and this allows: to spread product knowledge, culture and experience inside the company; to check the entire manufacturing cycle; to adopt possible improvements immediately; better sensitivity to market request adjusting product range design in real time.

### What high pressure cleaner? Is it better pressure or delivery rate?

The right criteria to define the high-pressure cleaner performances is the washing effectiveness.

The elements that influence this value are: delivery rate (water volume processed by the pump in a unity of time) and pressure (I/h



### What pump? Is it better a linear (crankshaft) or an axial one?

It does not exist a winning technology, because both solution can provide same performances and lifetime. What determines the pump





quality is the quality of the project itself (linear or axial) and of the components used; for this reason Lavorwash decided to develop both technologies, taking into consideration a design that grants margin of safety and reliability.

### What design? Is it better horizontal or vertical construction?

The design of a cold water high-pressure cleaner can have an horizontal development (ex. DANUBIO) or a vertical one (ex. MICHIGAN) and also the pump position follows the orientation of the structure.

The vertical development is much more ergonomic for the user, because machine moving and storing after use are much easier, but these benefits raise manufacturing cost. The horizontal development allows an easier pump service if needed, better stability and a lower manufacturing cost.

• Linear pump:

The movement of the (3) pistons

CRANKSHAFT occur through a system of connecting
rods and crankshaft. The longitudinal axle of
the pistons (placed at the same level or linear) is
perpendicular to the motor rotation axle. It is more
versatile to bear high delivery rates (from 21 I/
min) and it has a better self priming.

### • Water cooled motor:

Water flows through the S/S coil around the motor, this allows a better thermal exchange (and so a cooling) than air also in those countries where inlet water could reaches 60°C. This allows a drop in operating temperature of the motor and pump mechanical elements, granting a better reliability and longer life.

Total Stop:
Releasing the gun trigger the pump stops automatically avoiding element damages during the by-pass phase. Pulling the trigger, the high-pressure cleaner starts

automatically. Max pump protection.

TSV Total Stop 24V

### Low voltage and delayed Total Stop:

Total Stop 24V To avoid quick and multiple start and shut down of the motor/pump group whenever the gun trigger is pulled and released, this disposal delays of about 15 seconds the machine shut down. Prevention, energy saving, top safety and pump longer life.

• Thermal valve:

When the gun trigger is released, the same water flows through the pump (by-pass) and it overheats and sooner or later this damages the valve seals. With this completely mechanical system, the thermal valve checks the temperature in the pump, opening/closing the by-pass circuit letting new and fresh water flow inside before the elements are damaged. Simple solution without electronic devices.

**1450** RPM

### Motor low rotation speed:

The electric motor transfers the same number of revolutions to

the pump. With a 4 poles motor there is a lower rotation speed of the components (1400 RPM in case of 50Hz or 1750 RPM in case of 60 Hz) granting longer pump life. Extending lifetime solution.

• Pressure accumulator:

The release of the gun trigger produces a strong counterstroke in the pump. This device amortizes this power with great benefit for the pump components and for the user, because it removes all the vibrations.

WATER



### **Mystic XP**



# • 6.001.0089 Gun S'09 M22 with quick connection. • 6.002.0322 Lance M22. • 5.012.0281 High pressure nozzle set • 4.618.0128 High pressure hose 8 m • Power cable 5 m



### **Equipped with:**

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve.
- Suction and delivery S/S valves. Detergent built-in tank for indirect suction.
- Pressure regulator. Glicerine pressure gauge. Hose reel. Accessory holder.
- Ergonomic handle.

### **Optional:**

- 6.608.0071 High-pressure wall mount hose reel (hose not included)
- 3.749.0472 Turbo nozzle head



	Mystic 1309 XP
code	8.661.0001
operat. pressure	130 bar-1885 psi
delivery rate	540 l/h-2,37 GPM
abs. power/voltage	2800W - 230V~50Hz 1 ph
pump type/RPM	MPBX2/2800 RPM
max. water inlet temperature	40 °C
dimension/weight	43x50x85cm / 28 Kg - 61,6 lbs



### **Garage LP**













### **Equipped with:**

- 4 poles electrical motor (1450 RPM) with thermal protection. Three ceramic coated pistons, brass linear pump head with built-in by-pass valve. Suction and delivery S/S valves. Integrated detergent suction with external suction probe. Pressure regulator. Glicerine pressure gauge. Wall mount hose reel (optional code 6.608.0022).
- Kit for wall installation (optional code 6.608.0058). Set with wheels and extended handle for trolley version (optional code 6.608.0056).

### **Optional:**

- 6.608.0071 High-pressure wall mount hose reel (hose not included)
- 6.608.0056 Set with wheels and extended handle for trolley version.
- 6.608.0058 Kit for wall installation



	GARAGE 1211 LP	GARAGE 1612 LP
code	8.662.0001	8.662.0002
operat. pressure/max	120/150 bar-1740/2175 psi	160 bar-2320 psi
delivery rate	660 l/h-2.91 GPM	720 l/h-3.17 GPM
abs. power/voltage	3000W - 230V~50Hz 1 ph	4200W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM
max. water inlet temperature	40 °C	40 °C
dimension/weight	50x43x56cm / 34 kg - 75 lbs	50x43x56cm / 34 kg - 75 lbs



### Columbia R LP



### Standard equipment:

• 3.700.0036 Gun M22 - 3/8" (mod 1211 LP).



 3.700.0030 Gun M22 - 3/8" with rotating coupling (mod. 1515 LP/2015 LP).



• 3.701.0015 Lance M22 high/low pressure



- 3.103.0050 Nozzle type 045 (mod. 1211 LP/2015 LP)
- 3.103.0053 Nozzle type 060 (mod. 1515 LP)



- 4.618.0049 High pressure hose 8 m (mod. 1211 IP)
- 4.618.0143 High pressure hose 10 m (mod 1515 LP/2015 LP).



- Power cable 5 m (mod. 1211 LP)
- Power cable 6 m (mod. 1515 LP 2015 LP)

### **Optional:**

• 6.608.0068 High-pressure hose reel (hose not included)



• 4 poles electrical motor (1450 RPM) with thermal protection and water cooling (three phase models). • Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. • Low voltage and delayed Total Stop (three phase model). • Suction and delivery S/S valves. • Integrated detergent suction with external suction probe. • Pressure regulator. • Glicerine pressure gauge.

• Hose reel **(optional)**. • Accessory holder. • Power cable holder. • Steel frame. • Steel cover.

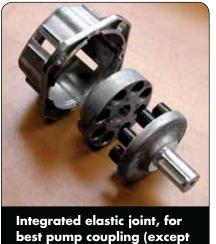


	COLUMBIA R 1211 LP	COLUMBIA R 1515 LP	COLUMBIA R 2015 LP
code	8.654.0071	8.654.0073	8.654.0072
operat. pressure/max	120/150 bar-1740/2175 psi	150 bar-2175 psi	200 bar-2900 psi
delivery rate	660 l/h-2.91 GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM
abs. power/voltage	3000W - 230V~50Hz 1 ph	5000W - 400V~50Hz 3 ph	7000W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MPW3/1450 RPM	MPW3/1450 RPM
max. water inlet temperature	40 °C	40 °C	40 °C
dimension/weight	50x90x83cm / 37 kg - 81 lbs	50x90x83cm / 49 Kg - 108 lbs	50x90x83cm / 51 Kg - 112 lbs

### Cold water high-pressure cleaner Heritage line







### **Equipped with:**

- 4 poles electrical motor (1450 RPM) with thermal protection and water cooling. Three ceramic pistons, brass linear pump head with built-in by-pass valve. Integrated elastic joint, for best pump coupling (three phase models).
- Low voltage and delayed Total Stop (three phase models).
   Suction and delivery S/S valves.
- Integrated detergent suction with external suction probe. Pressure regulator. Glicerine pressure gauge. Hose reel (optional). Steel frame.
- Steel covers.

### Optional:

• 6.608.0068 High-pressure hose reel (hose not included)

	Hyper C 1211 LP	Hyper C 1515 LP	Hyper C 2015 LP	Hyper C 2021 LP	Hyper C 2515 LP
code	8.654.0074	8.654.0033	8.654.0023	8.654.0031	8.654.0053
operat. pressure	125 bar-1812 psi	150 bar-2175 psi	200 bar-2900 psi	200 bar-2900 psi	250 bar-3600 psi
delivery rate	660 l/h-2.91GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM	900 l/h-3.96 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	5000W - 400V~50Hz 3ph	7000W - 400V~50Hz 3ph	9400W - 400V~50Hz 3ph	8500W - 400V~50Hz 3ph
pump type/RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. water inlet temperature	40 °C	40 °C	40 °C	40 °C	40 °C
dimension/weight	50x90x83cm / 42 Kg - 92 lbs	50x90x83cm / 54 Kg -119 lbs	50x90x83cm / 56 Kg - 123 lbs	50x90x83cm / 58 Kg - 128 lbs	50x90x83cm / 59 kg - 130 lbs

model 1211).



### MCHP LP





Total Stop 24V

Models: 1515 LP/2015 LP
2021 LP

Models: 1211 LP



Models: 1515 LP/2015 LP 2021 LP

### Optional: Recommended accessories:

• 3.700.0036 Gun M22 - 3/8" (mod 1211 LP).



• 3.700.0030 Gun M22 - 3/8" with rotating coupling (mod. 1515 LP/2015 LP/2021 LP).



• 3.701.0015 Lance M22 high/low pressure



- 3.103.0050 Nozzle type 045 (mod. 1211 LP)
- 3.103.0053 Nozzle type 060 (mod. 1515 LP)
- 3.103.0050 Nozzle type 045 (mod. 2015 LP)
- 3.103.0056 Nozzle type 075 (mod. 2021 LP)



• 4.618.0143 High pressure hose 10 m



- 6.608.0030 Brackets for wall mounting
- On request: Stainless steel brackets for wall mounting

### **Equipped with:**

- 4 poles electrical motor (1450 RPM) with thermal protection and water cooling (three phase models). Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. Integrated elastic joint, for best pump coupling (three phase models). Low voltage and delayed Total Stop (three phase models). Suction and delivery S/S valves. Detergent built-in tank for indirect suction. Pressure regulator. Glicerine pressure gauge.
- Pressure accumulator (only model 2021).
- Wall mount support (optional code 6.608.0030). Galvanized steel frame.
- Plastic covers models MCHPV.





### Available:

**8.626.0037** - MCHPX 1211 LP with stainless steel frame and fairings

**8.626.0038** - MCHPX 2015 LP with stainless



	MCHPV 1211 LP	MCHPV 1515 LP	MCHPV 2015 LP	MCHPV 2021 LP
code	8.626.0001	8.626.0002	8.626.0003	8.626.0004
operat. pressure/max	120 bar-1740 psi	150 bar-2175 psi	200 bar-2900 psi	200 bar-2900 psi
delivery rate	660 l/h-2.91GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	5000W - 400V~50Hz 3ph	7000W - 400V~50Hz 3ph	9400W - 400V~50Hz 3ph
motorpump type/RPM	MP3/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. water inlet temperature	40 °C	40 °C	40 °C	40 °C
dimension/weight	75x50x35cm/ 42 Kg - 92 lbs	75x50x35cm/ 43 Kg - 95 lbs	75x50x35cm/ 46 Kg - 101 lbs	75x50x35cm/ 58 Kg - 128 lbs



**Standard equipment:** 

• 3.700.0022 Gun M24 - 3/8" 350 bar

### Ohio 3517 LP



### **Equipped with:**

• 4 poles electrical motor (1450 RPM) with thermal protection • Three ceramic pistons, brass linear pump head with built-in by-pass valve • Low voltage and delayed Total Stop • Suction and delivery S/S valves • Pressure regulator • Glicerine pressure gauge

• Steel frame • Steel cover.

	Ohio 3517 LP
code	8.651.0101
operat. pressure	350 bar-5076 psi
delivery rate	1020 l/h-4.49 GPM
abs. power/voltage	12500W - 380-400 V~50-60 Hz 3 ph
RPM	1450 RPM
max. water inlet temperature	40 °C
dimension/weight	100x66x92cm / 140 Kg - 308 lbs



### Cold water high-pressure cleaner Heritage line

### Utah 5015 LP



### Standard equipment:

• 3.700.0040 Gun + S/S Lance F 500 bar - l. 1350



• 3.103.0136 Nozzle type 030 - 50 MPa



• 4.618.0177 High pressure hose 20 m



• Power cable 5 m

### **Optional:**

Rotary head nozzle 3.749.0500 + adapter 3.100.0426

- 4 poles electrical motor (1450 RPM) with thermal protection. Three ceramic pistons, brass linear pump head with built-in by-pass valve. Low voltage and delayed Total Stop. Suction and delivery S/S valves. Pressure regulator.
- Glicerine pressure gauge. Steel frame. Steel cover.

	Utah 5015 LP
code	8.632.0001
operat. pressure	500 bar-7250 psi
delivery rate	900 I/h-3.96 GPM
abs. power/voltage	15000W - 400V~50Hz 3 ph
RPM	1450 RPM
max. water inlet temperature	40 °C
dimension/weight	68×99×74cm / 263 Kg - 579 lbs





## **Standard equipment:**• 3.700.0036 Gun M22 - 3/8"

• 3.701.0015 Lance M22 high/low pressure



• 3.103.0048 Nozzle type 035



• 4.618.0049 High pressure hose 8 m



### Optional:

- 6.608.0007 High-pressure hose reel (hose not included)
- 5.012.0319 Suction hose with check valve

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve.
- Suction and delivery S/S valves. 5 HP **Honda** GP 160 unleaded gasoline engine.
- Integrated detergent suction with external suction probe. Pressure regulator.
- Glicerine pressure gauge. Hose reel **(optional)**. Suction hose with check valve **(optional)**. Steel frame. Hose holder. Nozzles holder.

Thermic 5H
8.601.0107
160 bar-2320 psi
570 l/h-2.51 GPM
Honda GP 160/5
TPBH4/3000 RPM
40 °C
70x59x97cm / 37 Kg - 81 lbs

### Thermic 9





### Standard equipment:

• 3.700.0036 Gun M22 - 3/8"



• 6.002.0322 Lance M22 with nozzle-holder



• 5.012.0282 High pressure nozzle set



• 4.618.0012 High pressure hose 10 m





### **Equipped with:**

- Three ceramic pistons, brass linear pump head with built-in by-pass valve
- Suction and delivery S/S valves
- 9 HP unleaded gasoline engine.
- By-pass with safety valve.
- Integrated detergent suction with external suction probe.
- Pressure regulator.
- Suction hose with check valve (optional).
- Steel frame.
- Hose holder.
- Nozzles holder.

### Optional:

• 5.012.0319 Suction hose with check valve



	Thermic 9
code	8.601.0134C
operat. pressure	200 bar-2900 psi
delivery rate max	900 l/h-3.96 GPM
engine type/hp	Lavor/9
pump type/RPM	TPBH5/3400 RPM
max. temp. inlet/oulet	40 °C
dimension/weight	100x66x92cm / 50 Kg - 99 lbs



### Thermic 10 D



### **Standard equipment:**

• 3.700.0030 Gun M22 - 3/8" with rotating coupling.



• 3.701.0015 Lance M22 high/low pressure.



• 3.103.0052 Nozzle type 055



• 4.618.0012 High pressure hose 10 m



### **Optional:**

• 5.012.0319 Suction hose with check valve



• Three ceramic pistons, brass linear pump head with built-in by-pass valve. • 1450 RPM reducer between engine and pump. • By-pass with safety valve. • Automatic RPM regulation. • Electrical start with engine functions control. • Lombardini diesel engine 15LD400 (air cooled). • Integrated detergent suction with external suction probe. Pressure regulator. • Glicerine pressure gauge. • Suction hose with check valve (optional).

• Heavy duty steel frame. • Battery included.

	Thermic 10 D
code	8.601.0111
operat. pressure	180 bar-2465 psi
delivery rate	1020 l/h-4.49 GPM
engine type/hp	Lombardini 15LD400/10
pump type/RPM	CL5/1450 RPM
max. temp. inlet/oulet	40 °C
dimension/weight	100x66x92cm / 82 Kg - 180 lbs

### Thermic 11H



### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0044 Lance 900 mm with quick connection.

• 3.103.0053 Nozzle type 060



• 4.618.0143 High pressure hose 10 m



### Optional:

- 5.012.0319 Suction hose with check valve
- 5.613.0145 Protective frame with lifting hooking
- 6.608.0060 Hose reel (hose not included)

- Three ceramic pistons, brass linear pump head. 1450 RPM reducer between engine and pump. By-pass with safety valve. Automatic RPM regulation. Suction and delivery S/S valves. 11 HP **Honda** GX 340 unleaded gasoline engine.
- Integrated detergent suction with external suction probe. Inlet filter. Pressure regulator. Glicerine pressure gauge. Suction hose with check valve (optional).
- Heavy duty steel frame.

	Thermic 11 H
code	8.601.0115
operat. pressure	200 bar-2900 psi
delivery rate	1080 l/h-4.76 GPM
engine type/hp	Honda GX 340/11
pump type/RPM	CL5/1450 RPM
max. temp. inlet/oulet	40 °C
dimension/weight	100x66x92cm / 61 Kg - 134 lbs



### Thermic 13 H



### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0044 Lance 900 mm with quick connection.

• 3.103.0050 Nozzle type 045



• 4.618.0143 High pressure hose 10 m



### **Optional:**

- 5.012.0319 Suction hose with check valve
- 5.613.0145 Protective frame with lifting hooking
- 6.608.0060 Hose reel (hose not included)

- Three ceramic pistons, brass linear pump head. 1450 RPM reducer between engine and pump. Automatic RPM regulation. By-pass with safety valve.
- Suction and delivery S/S valves. 13 HP **Honda** GX 390 unleaded gasoline engine. Integrated detergent suction with external suction probe. Pressure regulator. Glicerine pressure gauge. Suction hose with check valve (**optional**).
- Heavy duty steel frame.

	Thermic 13 H
code	8.601.0133
operat. pressure	250 bar-3625 psi
delivery rate	1020 l/h-4.49 GPM
engine type/hp	Honda GX 390/13
pump type/RPM	CL5/1450 RPM
max. temp. inlet/oulet	40 °C
dimension/weight	100x66x92cm / 61 Kg - 134 lbs





### Why a hot water high-pressure cleaner?

It is necessary the use of a hot water high-pressure cleaner whenever it is necessary to degrease oily or particularly tough dirt in the shortest time possible. Washing efficiency of hot water is much higher that the cold water one (up to 50% higher on some kind of dirt), because heat assists dirt degrease. Heat effect on the surface produce also fast drying. With the use of a hot water high-pressure cleaner it is possible to have: shorter washing time (under the same kind of dirt), better degrease of non water-soluble dirt, shorter drying time and less quantity of chemical product used: in few words, lower cleaning fixed costs.

### The boiler

It is a diesel fuel heater that raises water temperature coming out of the pump; the difference between inlet and outlet water temperature is technically indicated like DeltaT. Boiler dimensions, in other words coil and diesel fuel consumption, determine the thermal power of the burner.

Under the same conditions, increasing the delivery rate (quantity of water to be heated) the Delta T decreases proportionally. It is easy to understand why high pressure cleaners with higher delivery rates have more powerful burners: to grant the best operating temperature in each working condition. All our boilers have thermal output very high, near 90% or higher. This means that the relation between usable obtained power (Delta T impressed in water) and power consumption (diesel fuel) to produce that power is very high.

### What changes among high-pressure cleaners with similar performances?

It is necessary to consider besides pressure and delivery rate also the standard equipment (dimensions and type), optional functions (antiscale, total stop, etc.) and the manufacturing specifications (type of materials and applied technology). Nevertheless the most important aspect is the resistance to wear and tear and to continuous use, that raises progressively with the increase of manufacturing components specifications or moving up from a model to the next class one.

### Hot water high-pressure cleaner





### Linear pump:

The movement of the (3) pistons occur through a system of connecting rods and crankshaft. The longitudinal axle of the pistons (placed

at the same level or linear) is perpendicular to the motor rotation axle. It is more versatile to bear high delivery rates (from 21 l/min) and it has a better self priming.



### Water cooled motor:

Water flows through the S/S coil around the motor, this allows a better thermal exchange (and so a cooling) than air also in those

countries where inlet water could reaches 60°C. This allows a drop in operating temperature of the motor and pump mechanical elements, granting a better reliability and longer life.



### • Total Stop:

Releasing the gun trigger the pump stops automatically avoiding element damages during the by-pass phase. Pulling the trigger, the high-pressure cleaner starts automatically. Max pump protection.



down of the motor/pump group whenever the gun trigger is pulled and released, this disposal delays of about 15 seconds the machine shut down. Prevention, energy saving, top safety and pump longer life.



### • Low voltage and delayed Total Stop with intelligent shut down:

To avoid quick and multiple start and shut down of the motor/pump group whenever the gun trigger is pulled and released, this disposal delays of about 15 seconds the machine shut down. In case the machine is unused for more than 20 minutes or there are leakages in the pressure circuit, the machine shuts down automatically and completely: control panel power cut-off. Prevention, energy saving, top safety and pump longer life.



### Motor low rotation speed:

The electric motor transfers the same number of revolutions to the pump. With a 4 poles

motor there is a lower rotation speed of the components (1400 RPM in case of 50Hz or 1750 RPM in case of 60 Hz) granting longer pump life. Extending lifetime solution.



### • Pressure accumulator:

The release of the gun trigger produces a strong counterstroke in the pump. This device amortizes this power with great benefit for the

pump components and for the user, because it removes all the vibrations.



### • Eco Energy:

Eco Energy System: in this setting, the running parameters of the

machine grant the best compromise among performance, result of the cleaning task and ecological footprint. The relation between water temperature and boiler fuel consumption is optimized.

















Vulcano

Mississippi XP

Dakota XP

NPX XP

Texas LP

\_P \_\_LK`

LKX LP

Tekna LP

						ı						ı				
			operating pressure (max pressure)	operating pressure (max pressure)	delivery rate	delivery rate	absorbed power	шди	voltage	outlet temp.	fuel consumption	diesel tank	antiscale tank	heat output	packaging	packaging weight
Code	Model	pag	bar	psi	l/h	GPM usa	W	RPM	٧	°C	l/h - gal/h	l - gal	l - gal	kW	cm	Kg - lbs
8.699.0015	VULCANO 74	36		-		-	300	-	230~50	max 140°	5,6 - 1.5	18 - 4.8	-	74	113x71x111	103.6 - 228
8.625.0001	MISSISSIPPI 1310 XP	37	30÷130	435÷1885	330÷600	1.45÷2,64	3000	2800	230~50	max 90°	2,83 - 0.75	14 - 3.7	-	38	65x85x100	71.5 - 157
8.633.0001	DAKOTA 1211 XP	38	30÷120	435÷1740	330÷660	1.45÷2.91	3200	2800	230~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	69x85x111	94 - 207
8.633.0002	DAKOTA 1511 XP	38	30÷150	435÷2175	330÷660	1.45÷2.91	4000	2800	400~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	69x85x111	97 - 213
8.633.0003	DAKOTA 1813 XP	38	30÷180	435÷2610	400÷780	1.76÷3.43	6300	2800	400~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	69x85x111	105 - 231
8.620.0601	NPX 1211 XP	39	30÷120	435÷1740	330÷660	1.45÷2.91	3200	2800	230~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	71x113x111	118 - 260
8.620.0602	NPX 1511 XP	39	30÷150	435÷2175	330÷660	1.45÷2.91	4000	2800	400~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	71x113x111	118.4 - 261
8.620.0617	NPX 1813 XP	39	30÷180	435÷2610	400÷780	1.76÷3.43	6300	2800	400~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	71x113x111	117.5 - 259
8.630.0002	TEXAS 1510 LP	40	30÷150	435÷2175	330÷600	1.45÷2.6	3000	1450	230 - 50	max 140°	3,8 - 1	16 - 4.3	-	42	69x85x111	104 - 229
8.630.0003	TEXAS 1612 LP	40	30÷160	435÷2320	330÷690	1.45÷3	4200	1450	400 - 50	max 140°	3,8 - 1	16 - 4.3	-	42	69x85x111	107 - 236
8.630.0004	TEXAS 2014 LP	40	30÷200	435÷2900	450÷840	1.98÷3.7	6000	1450	400 - 50	max 140°	3,8 - 1	16 - 4.3	-	42	69x85x111	115 - 253
8.621.0947	LKX 1310 LP	41	30÷110	435÷1595	330÷660	1.45÷2.91	3000	1450	230~50	max 140°	4,72 - 1,25	18 - 4.8	-	58	113x71x111	130.5 - 287
8.621.0934	LKX 1515 LP	41	30÷150	435÷2175	450÷900	1.98÷3.96	5500	1450	400~50	max 140°	5,6 - 1.5	18 - 4.8	-	74	113x71x111	143.4 - 316
8.621.0935	LKX 2015 LP	41	30÷200	435÷2900	450÷900	1.98÷3.96	7300	1450	400~50	max 140°	5,6 - 1.5	18 - 4.8	-	74	113x71x111	146 - 322
8.622.0901	TEKNA 1515 LP	42	30÷150	435÷2175	450÷900	1.98÷3.96	5500	1450	400~50	max 140°	4,72 - 1.25	22 - 5.8	2,4 - 0.6	58	130x78x111	161 - 355
8.622.0902	TEKNA 2015 LP	42	30÷200	435÷2900	450÷900	1.98÷3.96	7300	1450	400~50	max 140°	4,72 - 1.25	22 - 5.8	2,4 - 0.6	58	130x78x111	172 - 379
8.622.0921	TEKNA 2021 LP	42	30÷200	435÷2900	630÷1260	2.77÷5.55	9700	1450	400~50	max 140°	6,6 - 1,75	22 - 5.8	2,4 - 0.6	88	130x78x111	180 - 396
8.621.0921	HYPER L 1211 LP	43	30÷110	435÷1595	345÷660	1.52÷2.91	3000	1450	230~50	max 140°	4,72 - 1.25	18 - 4.8	-	58	113x71x111	127 - 280
8.621.0907	HYPER L 1515 LP	43	30÷150	435÷2175	345÷900	1.52÷3.96	5500	1450	400~50	max 140°	5,6 - 1,5	18 - 4.8	-	74	113x71x111	148.5 - 327
8.621.0908	HYPER L 2015 LP	43	30÷200	435÷2900	450÷900	1.98÷3.96	7300	1450	400~50	max 140°	5,6 - 1,5	18 - 4.8	-	74	113x71x111	148.5 - 327
8.621.0928	HYPER L 2021 LP	43	30÷200	435÷2900	630÷1260	2.77÷5.55	9700	1450	400~50	max 140°	5,6 - 1,5	18 - 4.8	-	74	113x71x111	148.5 - 327
8.623.0911	HYPER T 2015 LP	44	30÷200	435÷2900	450÷900	1.98÷3.96	7300	1450	400~50	max 140°	6.6 - 1.75	22 - 5.8	2.4 - 0.6	88	130x78x111	187 - 412
8.623.0928	HYPER T 2515 LP	44	30÷250	435÷3600	450÷900	1.98÷3.96	8700	1450	400~50	max 140°	6.6 - 1.75	22 - 5.8	2.4 - 0.6	88	130x78x111	191 - 421
8.623.0902	HYPER T 2021 LP	44	30÷200	435÷2900	630÷1260	2.77÷5.55	9700	1450	400~50	max 140°	6.6 - 1.75	22 - 5.8	2.4 - 0.6	88	130x78x111	181.5 - 400
8.624.0601	HHPV 1211 LP	45	30÷120	435÷1740	345÷660	1.52÷2.91	3000	1450	230 - 50	max 140°	4,72 - 1.25	20 - 5.3	-	58	80x120x185	199 - 438
8.624.0603	HHPV 2015 LP	45	30÷200	435÷2900	450÷900	1.98÷3.96	7300	1450	400 - 50	max 140°	4,72 - 1.25	20 - 5.3	-	58	80x120x185	199 - 438
8.624.0604	HHPV 2021 LP	45	30÷200	435÷2900	630÷1260	2.77÷5.55	9700	1450	400 - 50	max 140°	4,72 - 1.25	20 - 5.3	-	58	80x120x185	210 - 463
8.601.0099	THERMIC 10 HW	46	30÷170	435÷2465	1020	4,49	10hp	1700	-	max 140°	4.72 - 1.25	30 - 7.9	-	58	120x80x107	160 - 352
8.601.0052	THERMIC 17 HW	47	30÷200	435÷2900	1320	5,82	17hp	1700	-	max 140°	5.6 - 1.5	40 - 10.5	-	74	120x85x112	355 - 781
8.601.0160	THERMIC 17 HW silence	48	30÷200	435÷2900	1320	5,82	17hp	1700	-	max 140°	5.6 - 1.5	40 - 10.5	-	74	120x85x112	440 - 968

# Hot water high-pressure cleaner













Hyper L LP

Hyper T LP

HHPV LP

Thermic 10 HW

Thermic 17 HW

Thermic 17 HW Silence



			operating pressure (max pressure)	operating pressure (max pressure)	delivery rate	delivery rate	absorbed power	mdı	voltage	outlet temp.	fuel consumption	diesel tank	antiscale tank	heat output	packaging	packaging weight
Code	Model	pag	bar	psi	l/h	GPM usa	W	RPM	٧	°C	l/h - gal/h	l - gal	l - gal	kW	cm	Kg - lbs
8.625.0003	MISSISSIPPI 1310	37	130 (150)	1885 (2175)	330÷600	1.45÷2,64	3000	3400	220~60	max 90°	2.83 - 0,75	14 - 3.7		38	80x55x83	65 - 143
8.620.0608	NPX 1211	39	100 (120)	1450 (1740)	450÷780	1.98÷3.44	3300	3400	220~60	max 140°	3,78 - 1	18 - 4.8	-	42	94x65x90	113 - 249
8.620.0618	NPX 1511	39	150 (170)	2175 (2465)	450÷780	1.98÷3.44	4000	3400	3ph 220~60	max 140°	3,78 - 1	18 - 4.8	-	42	94x65x90	113 - 249
8.620.0619	NPX 1511	39	150 (170)	2175 (2465)	450÷780	1.98÷3.44	4000	3400	380~60	max 140°	3,78 - 1	18 - 4.8	-	42	94x65x90	113 - 249
8.621.0915	LKX 1211	41	100 (120)	1450 (1740)	450÷780	1.98÷3.44	3300	3400	220~60	max 140°	3,78 - 1	18 - 4.8	-	42	94x65x90	120 - 264
8.621.0965	LKX 1310	41	110 (150)	1595 (2175)	345÷660	1.52÷2.91	3000	1700	220~60	max 140°	3,78 - 1	18 - 4.8	-	42	94x65x90	120 - 264
8.621.0966	LKX 2013	41	200 (210)	2900 (3045)	450÷780	1.98÷3.44	7300	1700	380~60	max 140°	3,78 - 1	18 - 4.8	-	74	94x65x90	130 - 286
8.622.0905	TEKNA 1211	42	100 (120)	1450 (1740)	345÷660	1.51÷2.91	3300	1700	220~60	max 140°	4.7 - 1.24	18 - 4.8	2.4	58	125x69x87	113 - 249
8.622.0906	TEKNA 2013	42	30÷200	435÷2900	390÷780	1.98÷3.44	7000	1700	3ph 220~60	max 140°	5.7 - 1.51	18 - 4.8	2.4	74	125x69x87	114 - 251
8.622.0916	TEKNA 2013	42	30÷200	435÷2900	390÷780	1.98÷3.44	7000	1700	380~60	max 140°	5.7 - 1.51	18 - 4.8	2.4	74	125x69x87	114 - 251
8.621.0911	HYPER L 1211	43	100 (120)	1450 (1740)	345÷660	1.51÷2.91	3300	1700	220~60	max 140°	4.7 - 1.24	18 - 4.8		58	94x65x90	135 - 297
8.621.0910	HYPER L 2018	43	30÷200	435÷2900	540÷1080	4.78÷9.56	8700	1700	380~60	max 140°	6.6 - 1.75	22 - 5.9		88	94x65x90	136 - 299.2
8.623.0906	HYPER T 2018	44	30÷200	435÷2900	540÷1080	4.78÷9.56	8700	1700	3ph 220~60	max 140°	6.6 - 1.75	22 - 5.9	2.4	88	94x65x90	166 - 365
8.623.0924	HYPER T 2018	44	30÷200	435÷2900	540÷1080	4.78÷9.56	8700	1700	380~60	max 140°	6.6 - 1.75	22 - 5.9	2.4	88	94x65x90	166 - 365

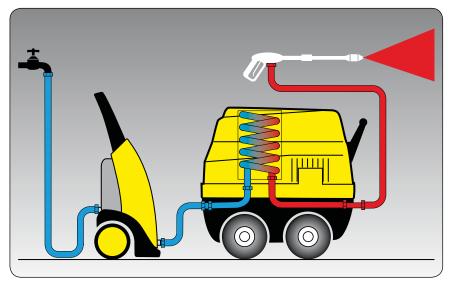


### Vulcano 74



### **Equipped with:**

- Boiler feeding: Diesel oil. Vertical burner with high thermal efficiency steel coil.
- Shock-resistant self-bearing frame.
- 4 big wheels for easy move.
- Gasoil tank high capacity ensuring longer working.
- Quick couplings supplied with the machine.
- Diesel tank capacity 18 l.
- High pressure hose  $3/8'' \varnothing 5/16''$  10 m, to connect any cold high pressure cleaner to Vulcano **(optional)**.



### **Optional:**

4.618.0012~ high presssure hose 3/8''~ ø 5/16''~ 10m, to connect any cold high pressure cleaner to the Vulcano.



	Vulcano 74
code	8.699.0015
operat. pressure allowed max.	200 bar-2900 psi
delivery rate allowed max.	1260 l/h-5.55 GPM
abs. power/voltage	300W/230V~50Hz 1 ph
max. temp. oulet	140 °C
heat output	74 kW
dimension/weight	94x65x90cm / 44 Kg - 88 lbs



#### Mississippi 1310 XP





#### **Equipped with:**

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve.
- Suction and delivery S/S valves. Vertical burner with high thermal efficiency steel coil. Temperature regulation gauge. Diesel pump with by-pass valve. Detergent built-in tank for indirect suction. Pressure regulator. Glicerine pressure gauge.
- Power cable holder. Accessory holder. Ergonomic handle.



**Optional:** 

	Mississippi 1310 XP
code	8.625.0001
operat. pressure/max	130/150 bar-1885/2175 psi
delivery rate	600 l/h-2.64 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph
motorpump type/RPM	MPBX2/2800 RPM
max. temp. inlet/oulet	40/90 °C
dimension/weight	80x55x83cm / 55 Kg - 121 lbs



#### Dakota XP



#### **Standard equipment:**

• 3.700.0030 Gun M22 - 3/8" with rotating coupling.



• 3.701.0015 Lance M22 high/low pressure



- 3.103.0050 Nozzle type 045 (mod. 1211 XP)
- 3.103.0049 Nozzle type 040 (mod. 1511 XP)
- 3.103.0049 Nozzle type 040 (mod. 1813 XP)



- 4.618.0049 High pressure hose 8 m (mod 1211 XP)
- 4.618.0143 High pressure hose 10 m (mod 1511 XP 1813 XP)



• Power cable 5 m

#### **Optional:**

• 6.608.0062 Hose reel with brake (hose not included)

#### **Equipped with:**

- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve. Low voltage and delayed Total Stop. Suction and delivery S/S valves. Vertical burner with high thermal efficiency steel coil. Temperature regulation gauge. Low fuel lamp. Safety valve.
- Detergent built-in tank for indirect suction. Pressure regulator. Glicerine pressure gauge.
- Panel with analogic controls. Heavy duty steel frame. Accessory holder. Two ways fuel pump. Hose reel with brake **(optional)**

	Dakota 1211 XP	Dakota 1511 XP	Dakota 1813 XP
code	8.633.0001	8.633.0002	8.633.0003
operat. pressure/max	120/150 bar-11450/2175 psi	150 bar-2175 psi	180 bar-2610 psi
delivery rate	660 l/h-2.91 GPM	660 l/h-2.91 GPM	780 l/h-3.43 GPM
abs. power/voltage	3200W - 230V~50Hz 1ph	4000W - 400V~50Hz 3 ph	6300W - 400V~50Hz 3 ph
motorpump type/RPM	MPBX2/2800 RPM	MPBX2/2800 RPM	MPBX2/2800 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	75x58x103cm / 74 Kg - 163 lbs	75x58x103cm / 76 Kg - 167 lbs	75x58x103cm / 78 Kg - 172 lbs



#### NPX XP



#### **Standard equipment:**

• 3.700.0030 Gun M22 - 3/8" with rotating coupling.



• 3.701.0015 Lance M22 high/low pressure



- 3.103.0050 Nozzle type 045 (mod. 1211 XP)
- 3.103.0049 Nozzle type 040 (mod. 1511 XP)
- 3.103.0049 Nozzle type 040 (mod. 1813 XP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m

#### **Optional:**

• 6.608.0001 Hose reel with brake (hose not included)



- Three ceramic coated pistons, brass axial pump head with built-in by-pass valve. Low voltage and delayed Total Stop. Suction and delivery S/S valves. Vertical burner with high thermal efficiency steel coil. Temperature regulation gauge. Low fuel lamp. Safety valve.
- Detergent built-in tank for indirect suction.
  Pressure regulator.
  Glicerine pressure gauge.
  Panel with analogic controls.
  Heavy duty steel frame.
  Accessory holder.
  Two ways fuel
- Panel with analogic controls.
   Heavy duty steel trame.
   Accessory holder.
   Iwo ways fuel pump.
   Hose reel with brake (optional)



	NPX 1211 XP	NPX 1511 XP	NPX 1813 XP
code	8.620.0601	8.620.0602	8.620.0617
operat. pressure/max	120/150 bar-11450/2175 psi	150 bar-2175 psi	180 bar-2610 psi
delivery rate	660 l/h-2.91 GPM	660 l/h-2.91 GPM	780 l/h-3.43 GPM
abs. power/voltage	3200W - 230V~50Hz 1ph	4000W - 400V~50Hz 3 ph	6300W - 400V~50Hz 3 ph
motorpump type/RPM	MPBX2/2800 RPM	MPBX2/2800 RPM	MPBX2/2800 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	94x65x90cm / 97 Kg - 213 lbs	94x65x90cm / 98 Kg - 215 lbs	94x65x90cm / 99 Kg - 217 lbs





#### **Standard equipment:**

• 3.700.0030 Gun M22 - 3/8" with rotating coupling.



• 3.701.0015 Lance M22 high/low pressure



- 3.103.0047 Nozzle type 030 (mod. 1510 LP)
- 3.103.0048 Nozzle type 035 (mod. 1612 LP)
- 3.103.0049 Nozzle type 040 (mod. 2014 LP)



- 4.618.0049 H. P. hose 8 m (mod. 1510 LP)
- 4.618.0143 H. P. hose 10 m (mod. 1612-2014 LP)

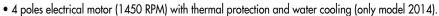


• Power cable 5 m

#### **Optional:**

- 6.608.0062 Hose reel with brake (hose not included)
- On request models with header tank and/or antiscale device.
- 3.697.0044 Antiscale LC-PRECAL (pcs. 4 x 5 lt.)

#### **Equipped with:**



• Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. • Low voltage and delayed Total Stop. • Suction and delivery S/S valves. • Vertical burner with high thermal efficiency steel coil, bio-diesel compatible. • Temperature regulation gauge with patented system. • Low fuel lamp and cut off. Safety valve. • Detergent built-in tank for indirect suction. • Pressure regulator. • Glicerine pressure gauge. • High pressure hose/ cable holder.

• Hose reel (optional).

	Texas 1510 LP	Texas 1612 LP	Texas 2014 LP
code	8.630.0002	8.630.0003	8.630.0004
operat. pressure	150 bar-2175 psi	160 bar-2320 psi	200 bar-2900 psi
delivery rate	600 l/h-2.6 GPM	690 l/h-3 GPM	840 l/h-3.7 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	4200W - 400V~50Hz 3 ph	6000W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM	MPW3/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	75x58x103cm / 86 Kg - 189 lbs	75x58x103cm / 89 Kg - 196 lbs	75x58x103cm / 97 Kg - 213 lbs

#### Hot water high-pressure cleaner









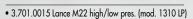
• 4 poles electrical motor (1450 RPM) with thermal protection and water cooling (three phase models). • Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. • Low voltage and delayed Total Stop. • Suction and delivery S/S valves. • Vertical burner with high thermal efficiency steel coil. • Temperature regulation gauge with high sensitive stainless steel sensor. • Detergent built-in tank for indirect suction. • Auxiliary motor for burner. • Heavy duty steel frame. • Hose reel with brake (optional).

#### **Standard equipment:**

**LKX LP** 

• 3.700.0030 Gun M22 - 3/8" with rotating coupling. (mod. 1310 LP).

• 6.601.0001 Gun S'10 3/8" M with quick connection (mod. 1515 LP-2015 LP).



• 6.602.0044 Lance 900 mm with quick connection. (mod. 1515 LP-2015 LP)

- 3.103.0050 Nozzle type 045 (mod. 1310 LP)
- 3.103.0053 Nozzle type 060 (mod. 1515 LP)
- 3.103.0050 Nozzle type 045 (mod. 2015 LP)



• 4.618.0143 H. P. hose 10 m



• Power cable 5 m

#### **Optional:**

- 6.608.0004 Hose reel with brake (hose not included)
- On request models with header tank and/or antiscale device.
- 3.697.0044 Antiscale LC-PRECAL (pcs. 4 x 5 lt.)



	LKX 1310 LP	LKX 1515 LP	LKX 2015 LP
code	8.621.0947	8.621.0934	8.621.0935
operat. pressure/max	110/150 bar-1595/2175 psi	150 bar-2175 psi	200 bar-2900 psi
delivery rate	660 l/h-2.91 GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	5500W - 400V~50Hz 3 ph	7300W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MP3/1450 RPM	MP3/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	94x65x90cm / 112 Kg - 246 lbs	94x65x90cm / 125 Kg - 275 lbs	94x65x90cm / 128 Kg - 282 lbs

#### Hot water high-pressure cleaner



#### Tekna LP

#### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0043 Lance 900 mm with quick connection.

- 3.103.0047 Nozzle type 030 (mod. 1515 LP)
- 3.103.0050 Nozzle type 045 (mod. 2015 LP)
- 3.103.0055 Nozzle type 070 (mod. 2021 LP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m



#### **Optional:**

- 6.608.0005 Hose reel with brake (hose not included)
- 3.697.0044 Antiscale LC-PRECAL (pcs. 4 x 5 lt.)



#### **Equipped with:**

**CRANKSHAFT** 

**1450** 7rpm

- 4 poles electrical motor (1450 RPM) with thermal protection and water cooling. Three ceramic pistons, brass linear pump head with built-in by-pass valve. Low voltage and delayed Total Stop. Suction and delivery S/S valves. Vertical burner with high thermal efficiency steel coil.
- Auxiliary motor for burner air-cooling and two ways fuel pump. Temperature regulation gauge with high sensitive stainless steel sensor. Low fuel lamp and cut off. Safety valve.
- Header tank and antiscale device. Panel with analogic controls. Hose reel (optional).

	TEKNA 1515 LP	TEKNA 2015 LP	TEKNA 2021 LP
code	8.622.0901	8.622.0902	8.622.0921
operat. pressure	150 bar-2175 psi	200 bar-2900 psi	200 bar-2900 psi
delivery rate	900 l/h-3.96 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM
abs. power/voltage	5500W - 400V~50Hz 3ph	7300W - 400V~50Hz 3 ph	9700W - 400V~50Hz 3 ph
motorpump type/RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	125×60×87cm / 138 Kg - 304 lbs	125×69×87cm / 1/3 Kg - 315 lbs	125v60v87cm / 145 Kg = 310 lbs









Model: 1515 LP 2015 LP 2021 LP



• 4 poles electrical motor (1450 RPM) with thermal protection and water cooling. • Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in bypass valve. • Integrated elastic joint, for best pump coupling. • Low voltage and delayed Total Stop. Suction and delivery S/S valves. • Vertical burner with high thermal efficiency steel coil. • Temperature regulation gauge with high sensitive stainless steel sensor. • Detergent built-in tank for indirect suction. • Auxiliary motor for burner air cooling and mechanical two ways fuel pump. • Hose reel (optional).



Integrated elastic joint, for best pump coupling

#### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection (mod. 1515 LP - 2015 LP - 2021 LP)



• 3.700.0030 Gun M22 - 3/8" with rotating coupling. (mod. 1211 LP)



- 6.602.0044 Lance 900 mm with quick connection (mod. 1515 LP 2015 LP 2021 LP)
- 3.701.0015 Lance M22 high/low press. (1211 LP)



- 3.103.0053 Nozzle type 060 (mod. 1515 LP)
- 3.103.0050 Nozzle type 045 (mod. 2015 LP 1211 LP)
- 3.103.0054 Nozzle type 065 (mod. 2021 LP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m

#### **Optional:**

• 6.608.0004 Hose reel with brake (hose not included)



	HYPER L 1211 LP	HYPER L 1515 LP	HYPER L 2015 LP	HYPER L 2021 LP
code	8.621.0921	8.621.0907	8.621.0908	8.621.0928
operat. pressure	110/150 bar-1595/2175 psi	150 bar-2175 psi	200 bar-2900 psi	200 bar-2900 psi
delivery rate	660 l/h-2.91 GPM	900 l/h-3.96 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	5500W - 400V~50Hz 3ph	7300W - 400V~50Hz 3ph	9700W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C	40/140 °C
dimension/weight	94x65x90cm / 109 Kg - 240 lbs	94x65x90cm / 127 Kg - 280 lbs	94x65x90cm / 129 Kg - 284 lbs	94x65x90cm / 131 Kg - 288 lbs

**Equipped with:** 

#### Hot water high-pressure cleaner







- 4 poles electrical motor (1450 RPM) with thermal protection and water cooling. • Three ceramic pistons, brass linear pump head with built-in by-pass valve. • Integrated elastic joint, for best pump coupling. • Low voltage and delayed Total Stop. • Vertical burner with high thermal efficiency steel coil.
- Auxiliary motor for burner air-cooling and two ways fuel pump.
- Temperature regulation gauge with high sensitive stainless steel sensor. • Header tank and antiscale device. • Pressure accumulator for hose and gun vibrations prevention (only 2015/2021 models). • Hose reel (optional).



Integrated elastic joint, for best pump coupling

#### Standard equipment:

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0043 Lance 900 mm with quick connection.

- 3.103.0050 Nozzle type 045 (mod. 2015 LP)
- 3.103.0055 Nozzle type 070 (mod. 2021 LP)
- 3.103.0049 Nozzle type 040 (mod. 2515 LP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m

#### **Optional:**

- 6.608.0005 Hose reel with brake (hose not included)
- 3.697.0044 Antiscale LC-PRECAL (pcs. 4



	HYPER T 2015 LP	HYPER T 2021 LP	HYPER T 2515 LP
code	8.623.0911	8.623.0902	8.623.0928
operat. pressure	200 bar-2900 psi	200 bar-2900 psi	250 bar-3600 psi
delivery rate	900 l/h-3.96 GPM	1260 l/h-5.55 GPM	900 l/h-3.96 GPM
abs. power/voltage	7300W - 400V~50Hz 3ph	9700W - 400V~50Hz 3 ph	8700W - 400V~50Hz 3 ph
motorpump type/RPM	MPW5/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	125x69x89cm / 169 Kg - 372 lbs	125x69x89cm / 171 Kg - 376 lbs	125x69x89cm / 173 Kg - 381 lbs

**Equipped with:** 





#### **HHPV LP**







#### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8" M with quick connection



• 6.602.0043 Lance 900 mm with quick connection.

- 3.103.0050 Nozzle type 045 (mod. 1211 LP)
- 3.103.0051 Nozzle type 050 (mod. 2015 LP)
- 3.103.0056 Nozzle type 075 (mod. 2021 LP)



• 4.618.0143 High pressure hose 10 m



• Power cable 5 m

#### **Optional:**

- 6.608.0032 Rotating Booms
- 6.608.0026 Flame sensor kit
- 6.608.0029 Remote control kit
- Low temperature internal insulation protection/heating
- With header tank and anti scale device

#### **Equipped with:**

• 4 poles electrical motor (1450 RPM) with thermal protection and water cooling. • Three ceramic coated pistons (1 ph), full ceramic pistons (3 ph), brass linear pump head with built-in by-pass valve. • Integrated elastic joint, for best pump coupling. • Low voltage and delayed Total Stop. • Suction and delivery S/S valves. • Vertical burner with high thermal efficiency steel coil. • Header tank. • High pressure detergent dosing pump. • Control panel with protection cover. • Accessory holder. • S/S fixing base support. • Varnished steel structure. • Rotating booms (optional).

	HHPV 1211 LP	HHPV 2015 LP	HHPV 2021 LP
code	8.624.0601	8.624.0603	8.624.0604
operat. pressure	120 bar-1740 psi	200 bar-2900 psi	200 bar-2900 psi
delivery rate	660 l/h-2.91 GPM	900 l/h-3.96 GPM	1260 l/h-5.55 GPM
abs. power/voltage	3000W - 230V~50Hz 1ph	7300W - 400V~50Hz 3ph	9700W - 400V~50Hz 3 ph
motorpump type/RPM	MP3/1450 RPM	MPW5/1450 RPM	MPW5/1450 RPM
max. temp. inlet/oulet	40/140 °C	40/140 °C	40/140 °C
dimension/weight	76x48x180cm / 181 Kg - 398 lbs	76x48x180cm / 190 Kg - 418 lbs	76x48x180cm / 192 Kg - 422 lbs



# Thermic 10 HW

# Hot water self-contained unit



#### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8 M with quick connection



• 6.602.0044 Lance 900 mm with quick connection.

• 3.103.0052 Nozzle type 055



• 4.618.0012 High pressure hose 10 m





#### **Equipped with:**

• Three ceramic pistons, brass linear pump head with built-in by-pass valve. • By-pass thermal protection with safety valve. • Electrical start with full engine functions control. • Auxiliary belt driven sturdy alternator. • Lombardini diesel engine 15LD400 (air cooled). • Pump-motor gearbox (1.650 RPM). • Automatic engine RPM regulator. • Integrated detergent suction with external suction probe. • Electrical start with engine functions control. • Unique diesel tank for engine and burner. • Battery included.

#### **Optional:**

- 5.613.0252 S/S header tank (high pressure
- 6.608.0014 Varnished soundproofing steel cover set code
- 6.608.0020 Trolley set with inflateable wheels & handles



	Thermic 10 HW
code	8.601.0099
operat. pressure	170 bar-2465 psi
delivery rate	1020 l/h-4.49 GPM
engine type/hp	Lombardini 15LD400/10
pump type/RPM	CL5/1650 RPM
max. temp. inlet/oulet	40/140 °C
dimension/weight	68x99x74cm / 140 Kg - 208 lbs



#### Thermic 17 HW

Hot water self-contained unit with integrated electric generator



#### **Standard equipment:**

• 6.601.0001 Gun PRO S'10 3/8 M with quick connection



• 6.602.0043 Lance 900 mm with quick connection.

• 3.103.0056 Nozzle type 075



• 4.618.0143 High pressure hose 10 m





#### **Equipped with:**

- Three ceramic pistons, brass linear pump head with built-in by-pass valve. By-pass thermal protection with safety valve. 2 cylinder water cooled diesel engine with electrical start.
- Integrated electric generator. Auxiliary belt driven sturdy alternator. Lombardini diesel engine 15LD400 (air cooled). Belt driven pump (1.450 RPM). Automatic engine RPM regulator. Socket tool max 1.5 kW Front panel with engine function led and automatic power cut-off. Unique diesel tank for engine and burner. Battery included.

#### **Optional:**

• 6.608.0013 Varnished soundproofing steel cover set



	Thermic 17 HW
code	8.601.0052
operat. pressure	200 bar-2900 psi
delivery rate	1320 l/h-5.82 GPM
engine type/hp	Lombardini 15LD400/17
pump type/RPM	CL5/1600 RPM
max. temp. inlet/oulet	40/140 °C
dimension/weight	113x75x85cm / 220 Kg - 480 lbs

#### Thermic 17 HW silence

Hot water self-contained unit with integrated electric generator



# • 6.601.0001 Gun PRO S'10 3/8 M with quick connection • 6.602.0043 Lance 900 mm with quick connection. • 3.103.0056 Nozzle type 075 • 4.618.0143 High pressure hose 10 m

#### Optional:

#### **Equipped with:**

- Three ceramic pistons, brass linear pump head with built-in by-pass valve. By-pass thermal protection with safety valve. 2 cylinder water cooled diesel engine with electrical start.
- Integrated electric generator. Auxiliary belt driven sturdy alternator. Lombardini diesel engine 15LD400 (air cooled). Belt driven pump (1.450 RPM). Automatic engine RPM regulator. Socket tool max 1.5 kW Front panel with engine function led and automatic power cut-off. Unique diesel tank for engine and burner. Battery included.

	Thermic 17 HW silence
code	8.601.0160
operat. pressure	200 bar-2900 psi
delivery rate	1320 l/h-5.82 GPM
engine type/hp	Lombardini 15LD400/17
pump type/RPM	CL5/1600 RPM
max. temp. inlet/oulet	40/140 °C
dimension/weight	115x80x105 / 418 Kg - 920 lbs





#### **High-pressure nozzle**

# nozzle **0**°

3.103.0027	high-pressure nozzle 0.30
3.103.0037	high-pressure nozzle 0.35
3.103.0028	high-pressure nozzle 0.40
3.103.0034	high-pressure nozzle 0.45
3.103.0029	high-pressure nozzle 0.50
3.103.0030	high-pressure nozzle 0.55
3.103.0031	high-pressure nozzle 0.60
3.103.0025	high-pressure nozzle 0.70
3.103.0070	high-pressure nozzle 0.75
3.103.0033	high-pressure nozzle 0.90



3.103.0047	high-pressure nozzle 0.30
3.103.0048	high-pressure nozzle 0.35
3.103.0049	high-pressure nozzle 0.40
3.103.0050	high-pressure nozzle 0.45
3.103.0051	high-pressure nozzle 0.50
3.103.0052	high-pressure nozzle 0.55
3.103.0053	high-pressure nozzle 0.60
3.103.0055	high-pressure nozzle 0.70
3.103.0056	high-pressure nozzle 0.75
3.103.0058	high-pressure nozzle 0.85



3.103.0018	high-pressure nozzle 0.30
3.103.0020	high-pressure nozzle 0.35
3.103.0009	high-pressure nozzle 0.40
3.103.0016	high-pressure nozzle 0.45
3.103.0017	high-pressure nozzle 0.50
3.103.0019	high-pressure nozzle 0.55
3.103.0021	high-pressure nozzle 0.60
3.103.0067	high-pressure nozzle 0.70
3.103.0068	high-pressure nozzle 0.75
3.103.0069	high-pressure nozzle 0.90



#### Rotary head nozzle

**Rotary nozzle max 280 bar:** G 1/4"F with brass body

Extension set for rotary nozzle: 1/4"M - 1/4"M codes 3.749.0004 + 4.006.0099 Spare coupling for gun M 22

6.608.0040	rotary nozzle - 0.45
6.608.0069	rotary nozzle - 0.55
3.749.0467	rotary nozzle - 0.70



#### Rotary head nozzle

**Rotary nozzle max 500 bar:**G 1/4"F with S/S body and seat/nozzle in highly shock-resistant tungsten carbide

**Extension set for rotary nozzle:** 1/4"M - 1/4"M codes 3.749.0004 + 4.006.0099 Spare coupling for gun M 22

3.749.0200	rotary nozzle 0.40
3.749.0201	rotary nozzle 0.45
3.749.0202	rotary nozzle 0.50
3.749.0203	rotary nozzle 0.55
3.749.0204	rotary nozzle 0.60
3.749.0205	rotary nozzle 0.65
3.749.0206	rotary nozzle 0.70
3.749.0263	rotary nozzle 0.90



#### Lance with rotary nozzle



#### Lance with rotary nozzle max 280 bar:

max temperature 90° C. rotary nozzle with brass body lance for gun M 22

6.602.0040	rotary nozzle - 0.45
6.602.0041	rotary nozzle - 0.55
6.602.0042	rotary nozzle - 0.70



# Sand-blasting lance max 280 bar:

max temperature 90° C. Sand-blasting lance with Widia nozzle for gun M 22

6.602.0027	sand-blasting lance - 0.40
6.602.0028	sand-blasting lance - 0.50
6.602.0029	sand-blasting lance - 0.75

Widia sand-blasting lance



# Sand-blasting head kit max 280 bar:

max temperature  $90^{\circ}$  C

(For lance 1/4"M)

6.608.0049	sand-blasting lance - 0.40
6.608.0050	sand-blasting lance - 0.50
6.608.0051	sand-blasting lance - 0.75

Sand-blasting lance kit



#### Sand-blasting head

**Sand-blasting heads** max 400 bar, **are not** supplied with nozzles. Orders will be always placed with the nozzle required.

Sand-blasting heads

3.749.0207	Sand blasting head - blade type
3.749.0208	Sand blasting head - round type
3.749.0209	Sand blasting head - prolonged type

Sand-blasting nozzles

3.749.0434	nozzle 0.40
3.749.0433	nozzle 0.45
3.749.0432	nozzle 0.50



Prolonged adjustable probe for sand-blasting

3.749.0210 S/S prolonged adjustable Ø 21 probe L = 500 mm



#### Calibrated sand for sand-blasting lances

**6 pieces of 5 kg each:** code 0.011.0001





#### **Indirect foam lance**

Foam lance

# **Foam injector lance max 250 bar:** Indirect foam lance max temperature 90° C. For gun M 22

6.602.0003 indirect foam lance



#### Foam lance max 180 bar:

max temperature 60° C Indirect foam lance with regulator and plastic bottle.

6.602.0051	For gun with quick ball coupling
6.602.0053	For gun with M 22 coupling



#### Foam injector lance

**Foam lance max 180 bar:** max temperature 60° C Indirect foam lance with regulator.

6.602.0054	For gun with quick ball coupling
6.602.0055	For gun with M 22 coupling

#### Gun 300 bar and Stainless steel lance mm 1050/1700



### S/S Lance with nozzle holder 1/4" M max 250 bar.

Gun for S/S lance max 300 bar.

3.701.0021	High/low press. S/S lance 1/4" M mm 1050
6.602.0049	High/low press. S/S lance 1/4" M mm 1700
6.602.0050	S/S lance 1/4" M mm 1700
3.700.0025	Gun with S/S lance 3/8" M - 1/4" F



#### **Double lances**

**Double lance with regulator knob max 250 bar:** for high/ low pressure regulator, max temperature 150° C, for gun M 22 (nozzles 1/8" not included)

3.701.0025 Double lance with regulator knob mm 500





#### Gun with extensible telescopic lance



Code		Pressure		Flow rate		Length		Flow rate Length Coupling		Tempe	rature
	bar	psi	MPa	l/m	GPM	min. mm	max. mm	Α	°C	°F	
3.749.0488	250	3625	25	40	10.5	2000	5000	3/8″M	150	302	

Quick coupling code: 4.607.0275 + adapter for nozzle 1/4" code: 3.100.0032 Quick coupling code: 4.607.0275 + adapter for nozzle 1/8" code: 3.100.0338

#### **Motorized** head



in combination with M24 nipple

Thermic 17 HW

cod. 3.749.0320

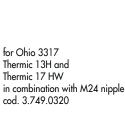
- S/S motorized head for case and tank cleaning
- Complete orbital internal coverage
- Complete with nozzles and converter

Motorized head	
code	3.749.0196
operat. pressure	220 bar - 3190 psi
allowed pressure	250 bar - 3625 psi
operat. delivery rate	1260 l/h - 5,56 GPM
nominal temperature	90° C
min. diameter	Ø 40 mm
nozzle type	2 x M4

#### **Floor Cleaning Lance**





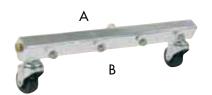




- S/S floor cleaning lance (nozzle not included)
  Complete with RL 35 gun
  For washing terraces and external floors in general.

Floor Cleaning Lance	
code	6.602.0020
operat. pressure	250 bar - 3625 psi
allowed pressure	280 bar - 4060 psi
operat. delivery rate	1200 l/h - 5,3 GPM
nominal temperature	160° C
nozzle dimension	.060





# Stainless steel floor cleaning lance with wheels (without nozzles)

Code		Pressure	;	Flow rate		Length	Coupli	ng	Tempe	rature
	bar	psi	MPa	l/m	GPM	mm	Α	В	°C	°F
6.602.0052	250	3625	25	20	5.29	500	1/4″F	1/8″F	160	320

#### Pipe cleaning nozzles

_	Code	Description	Thread	Туре
	3.103.0035	Pipe cleaning nozzle with side holes	3/8″M	0.55
	3.103.0106	Rounded head pipe cleaning nozzle	3/8″M	0.55
637	3.103.0107	Pipe cleaning nozzle with side holes	3/8″F	0.55
-	3.103.0119	Pipe cleaning nozzle with side holes	1/4″F	0.55



#### Kit pipe cleaning hose with nozzle

Code	Description	Length	gth Max. pressure			Inlet	Outlet
		m	bar	psi	MPa		
6.608.0054	Kit pipe cleaning hose	10	210	3045	21	M 22 - M	Stainless steel nozzle
6.608.0045	Kit pipe cleaning hose	20	210	3045	21	M 22 - M	Stainless steel nozzle



Code	Description	Length	Max. pressure			Inlet	Outlet
		m	bar psi MPa				
6.608.0047	Kit pipe cleaning hose	10	210	3045	21	Quick coupling	Stainless steel nozzle
6.608.0048	Kit pipe cleaning hose	20	210	3045	21	Quick coupling	Stainless steel nozzle

#### Fixed and rotate brushes



Fixed and rotate brushes max 250 bar: mm 700, max temperature  $90^{\circ}$  C, for gun M 22

6.602.0035	Fixed brush with extension pipe mm 700
6.602.0036	Rotating brush with extension pipe mm 700





#### High pressure hoses

Code	Max. pressure		Length	Ø	Inlet	Outlet	Max. temperature	
	bar	psi	MPa	m				°C
4.618.0153	310	4496	31	20	5/16"	1/2″F	3/8″F	150
4.618.0056	400	5801	40	20	5/16″	3/8″F	3/8″F	150
4.618.0057	400	5801	40	20	3/8″	3/8″F	3/8″F	150

#### Food hose R2 with rubber hose bend Ø 3/8"



#### For food industry

Code	Max. pressure		Length	Inlet	Outlet	Max. temperature	
	bar	psi	MPa	m			°C
4.618.0058	400	5801	40	10	3/8″F	3/8″F	150

#### Steam hose R2 with rubber hose bend Ø 3/8"



#### For food industry

Code	Max. pressure		Length	Inlet	Outlet	Max. temperature	
	bar	psi	MPa	m			°C
4.618.0059	400	5801	40	10	3/8″F	3/8″F	135

#### Wall mount hose reel



Wall mount hose reel with brakets without hose (capability 20 m hose 3/8")

Code	Description	Inlet	Outlet
3.749.0395	Wall mount hose reel with brakets without hose	3/8″F	3/8″F

#### **Automatic hose reel**



Varnished steel automatic hose reel with hose (capability 20 m hose 5/16")

Code	Description	Inlet	Outlet
3.749.0481	Varnished steel automatic hose reel	3/8″M	3/8″F
3.749.0482	Varnished steel automatic hose reel with hose	3/8″F	3/8″F



#### Quick coupling kit hose/gun



Quick coupling kit hose/gun - brass - inlet 3/8" F - outlet 3/8" M - 200 bar

Code: 6.608.0003

Quick coupling kit hose/gun – brass -inlet 1/4" F - outlet 1/4" M - 200 bar Code: 6.608.0002

Quick coupling kit hose/gun – stainless steel - inlet 3/8" F - outlet 3/8" F - 250 bar Code: 6.602.0021





#### Adapters for high pressure hoses

3/8" M 3/8" M

Code: 3.100.0023

3/8" M

M 22

Code: 4.606.0053

1/4" M

M 22



Code: 4.006.0062

3/8" M

M 22 F



Code: 3.100.0043

#### Adapters M 22 F/quick ball coupling

Lance M22 M22 F

**Quick ball coupling** 

Code: 5.609.0251



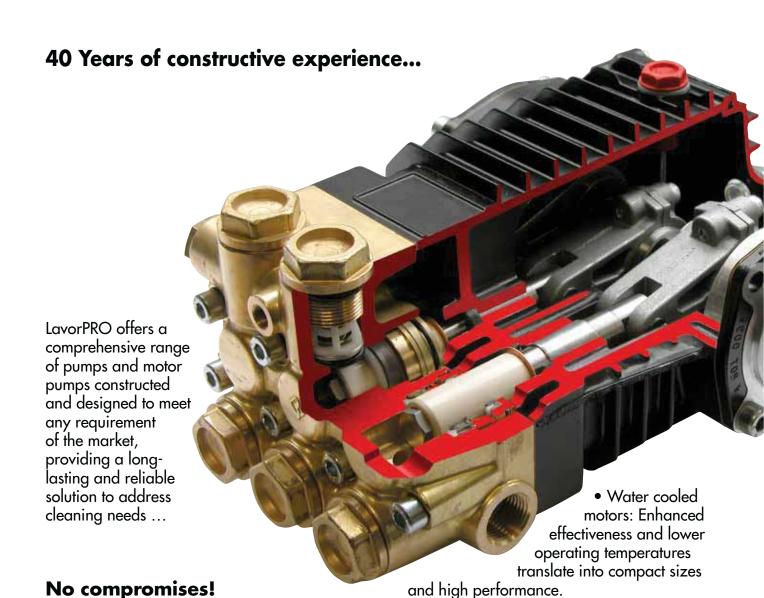
Gun PRO \$10 with quick ball coupling. Code 6.601.0001

#### Water flow adjuster coupling



Code	Inlet	Outlet	N	lax. pressu	re	Flow	rate	Tempe	rature
	Α	В	bar	psi	MPa	l/m	GPM	°C	°F
3.703.0023	M22 Ø14	M22F Ø14	280	4061	28	30	7.93	160	320
3.703.0024	1/4″ M	M22F Ø14	280	4061	28	30	7.93	160	320
3.703.0009	1/4" M	1/4″ F	280	4061	28	30	7.93	160	320





LavorPro's offering of pumps and motor pumps intentionally targets a clientèle seeking top quality and durability for this kind of products:

• 4-pole motors: They assure 1450 RPM speed, resulting in a decrease of pump and motor's operating temperatures, reduction in wear of consumables, lower oil deterioration inside the pump.

- Elastic coupling: it assures better alignment, dissipation of the heat from the motor rotor, lower stress on bearings, easy disassembly of the pump from the motor.
- Pump body in die cast aluminium: the casing design focuses on assuring stress is reduced to the minimum and operating temperatures are reduced, with the aim of guaranteeing unlimited service life.
- Forged brass pump head: improved mechanical strength, superior resistance to

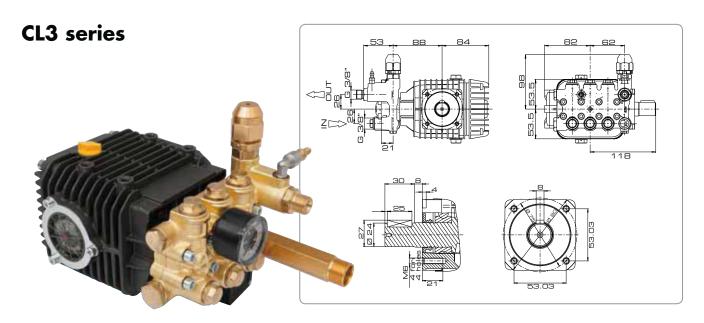
# PROBLEMOR!

corrosion and oxidation phenomena.

- Nickel plated forged brass (CW5) pump head: the perfect surface finish, jointly with the properties of the plating, assure improved resistance to chemicals and lower chance of deterioration caused by cavitation phenomena.
- Double gasket seal system The choice of the "U" gasket profile represents the maximum quality standard, assuring lower wear due to friction.
  - High temperature seals (CW5) : They assure optimal durability up to 85° operation.
  - Valves with stainless steel plate and spherical seal: high fluid dynamics performance.
- Ceramic pistons (according to the models): to assure longer service life of the pistons and guarantee lower wear of water seals and improved resistance to thermal shocks.
- Double housing connecting rods (CL5-CW 5): ease of maintenance.
- "READY TO USE" pumps (CL3): This range provides built-in by-pass valve, low pressure detergent injector, total stop actuation micro-switch, pressure regulation and pressure gauge, making installation easier and speeding up replacement and maintenance operations.



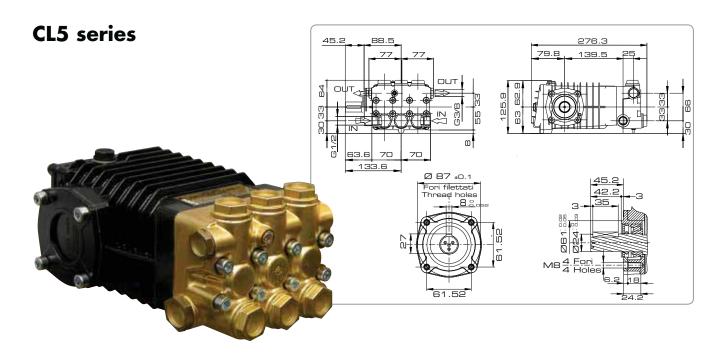




#### **Equipped with:**

• Pressure adjuster included • Chemical injector included • Total stop included • Glicerine pressure gauge included

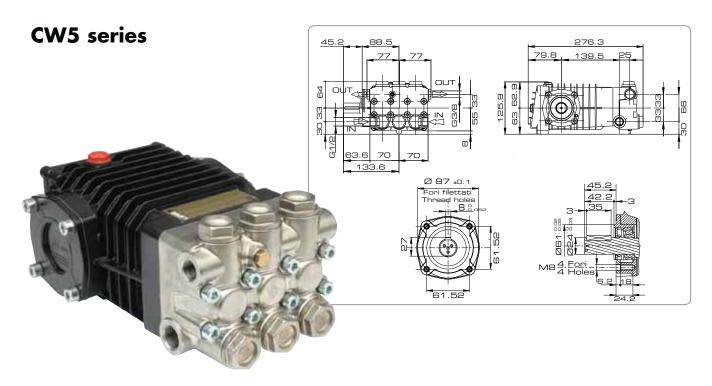
	Model	Right/left shaft ver.	RF	M	Mo	ax. pressu	ıre		Flow	rate		R	equeste	ed powe	er	We	eight
ı		Code			bar	psi	MPa	1/	m	GI	PM	Н	IP	k١	N	kg	lbs
ı	CL 34-15 9-200	5.700.X008	1450	1750	200	2900	20	9	11	2.4	2.9	4,9	6	3,6	4,4	6,6	14,5
ı	CL 34-15 11-200	5.700.X009	1450	1750	200	2900	20	11	13	2.9	3.5	6	6,5	4,4	4,8	6,6	14,5
ı	CL 34-18 15-200	5.701.X002	1450	1750	200	2900	20	15	18	4	4.7	7,5	9,2	5,5	6,9	7	15,4



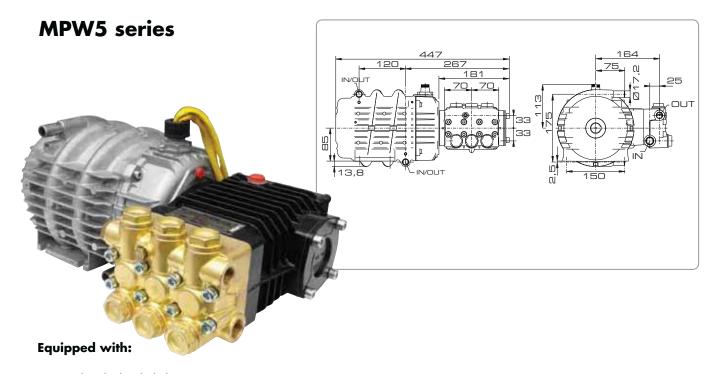
Model	Right shaft ver.	Left shaft ver.	RF	M	Mc	ax. press	ure		Flow	rate		R	equeste	d powe	er	We	eight
	Code	Code			bar	psi	MPa	1/	m	GF	PM	Н	ΙP	k١	N	kg	lbs
CL 54-20 11-200	5.699.0024	5.699.0025	1450	1750	200	2900	20	11	13	2.9	3.5	6	6,5	4,4	4,8	9,8	21,6
CL 54-20 15-200	5.699.0005	5.699.0009	1450	1750	200	2900	20	15	18	4	4.7	7,5	9,2	5,5	6,9	9,8	21,6
CL 54-20 21-200	5.699.0006	5.699.0010	1450	1750	200	2900	20	21	25	5.5	6.6	10,5	12,8	7,7	9,5	9,8	21,6

# **High-pressure pumps Units**





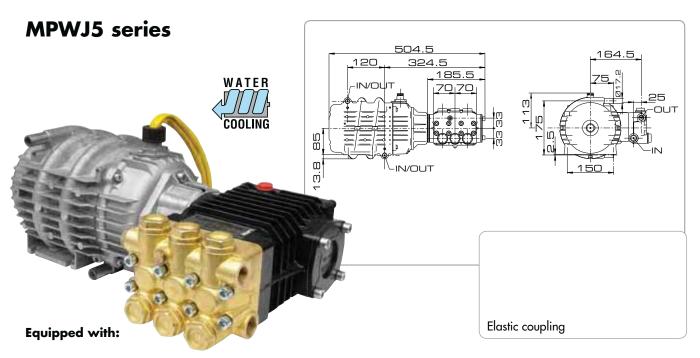
Model	Right shaft ver.	Left shaft ver.	RP	M	Mo	ax. press	ure		Flow	rate		R	equeste	ed powe	er	We	eight
	Code	Code			bar	psi	MPa	1/	m	GF	M	Н	Р	k١	~	kg	lbs
CW 54-20 11-200	5.699.0037	5.699.0039	1450	1750	200	2900	20	11	13	2.9	3.5	6	6,5	4,4	4,8	9,8	21,6
CW 54-20 15-200	5.699.0036	5.699.0038	1450	1750	200	2900	20	15	18	4	4.7	7,5	9,2	5,5	6,9	9,8	21,6
CW 54-20 21-200	5.699.0040	5.699.0041	1450	1750	200	2900	20	21	25	5.5	6.6	10,5	12,8	7,7	9,5	9,8	21,6



#### • Fixing bracked included

Model	Left shaft ver.	RPM	Mo	ax. press	ure	Flow	Flow rate Requeste		Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MPW 54-20 15-150	8.680.0022	1450	150	2175	15	15	4	5	3Ph Y 400V~50Hz	32	70,5
MPW 54-20 15-200	8.680.0023	1450	200	2900	20	15	4	7	3Ph Y 400V~50Hz	34	74,9





• High-pressure pumps units with elastic coupling • Fixing bracked included

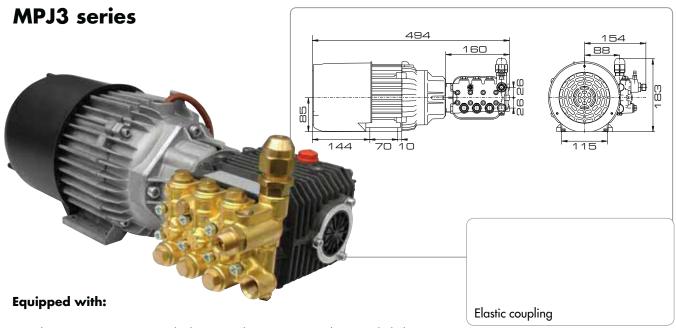
Model	Left shaft ver.	RPM	Мс	ax. press	ure	Flow	rate	Requested power	Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MPWJ 54-20 15-150	8.680.0028	1450	150	2175	15	15	4	5	3Ph Y 400V~50Hz	32,5	71,6
MPWJ 54-20 15-200	8.680.0029	1450	200	2900	20	15	4	7	3Ph Y 400V~50Hz	34,5	76
MPWJ 54-20 21-200	8.680.0030	1450	200	2900	20	21	5,5	9,4	3Ph Y 400V~50Hz	37,5	82,6



• Pressure adjuster included

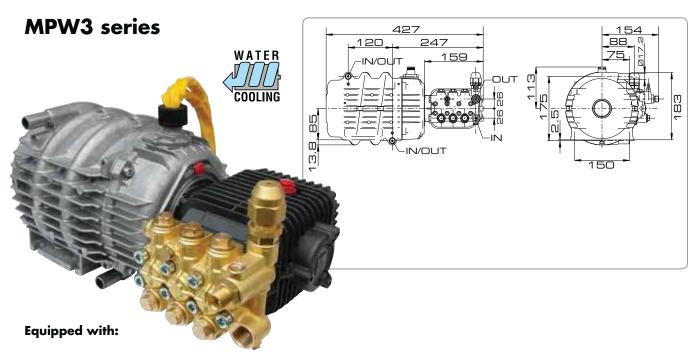
Model	Left shaft ver.	RPM	Mo	ax. press	ure	Flow	rate	Requested power	Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MP 34-15 11-120	8.680.0032	1450	120	1740	12	11	2,9	3	1Ph 230V~50Hz	22	49,2
MP 34-15 11-120	8.680.0033	1750	120	1740	12	11	2,9	3	1Ph 220V~60Hz	22	49,2
MP 34-15 11-150	8.680.0034	1450	150	2175	15	11	2,9	4	3Ph Y 400V~50Hz	22,5	49,6
MP 34-15 11-150	8.680.0035	1750	150	2175	15	11	2,9	4	3Ph Y 400V~60Hz	22,5	49,6





• High-pressure pumps units with elastic coupling • Pressure adjuster included

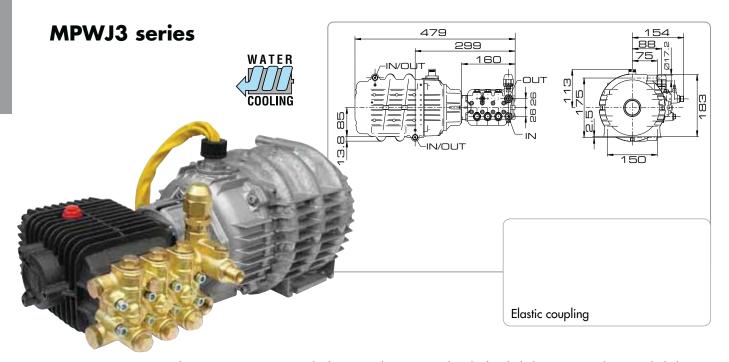
Model	Left shaft ver.	RPM	Mo	ax. press	ure	Flow rate		Requested power	Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MPJ 34-15 11-120	8.680.0036	1450	120	1740	12	11	2,9	3	1Ph 230V~50Hz	22,5	49,6
MPJ 34-15 11-120	8.680.0037	1750	120	1740	12	11	2,9	3	1Ph 220V~60Hz	22,5	49,6
MPJ 34-15 15-150	8.680.0038	1450	150	2175	15	11	2,9	4	3Ph Y 400V~50Hz	23	50,6
MPJ 34-15 15-150	8.680.0039	1750	150	2175	15	11	2.9	4	3Ph Y 400V~60Hz	23	50.6



• Fixing bracked included • Pressure adjuster included

Model	Left shaft ver.	RPM	Mo	ax. pressi	ure	Flow	rate	Requested power	Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MPW 34-18 15-150	8.680.0040	1450	150	2175	15	15	4	5	3Ph Y 400V~50Hz	28,8	63,5
MPW 34-18 15-200	8.680.0041	1450	200	2900	20	15	4	7	3Ph Y 400V~50Hz	30,8	67,9
MPW 34-15 13-200	8.680.0042	1750	200	2900	20	13	3,4	8,4	3Ph Y 400V~60Hz	28,5	62,8



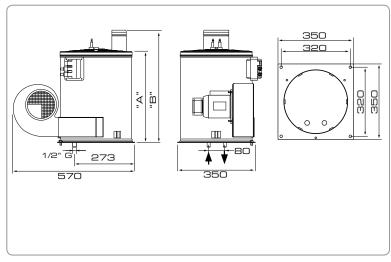


**Equipped with:** • High-pressure pumps units with elastic coupling • Fixing bracked included • Pressure adjuster included

Model	Left shaft ver.	RPM	Mo	ax. press	ure	Flow	rate	Requested power	Power supply	We	ight
	Code		bar	psi	MPa	l/m	GPM	kW		kg	lbs
MPWJ 34-18 15-150	8.680.0043	1450	150	2175	15	15	4	5	3Ph Y 400V~50Hz	29,3	64,6
MPWJ 34-18 15-200	8.680.0044	1450	200	2900	20	15	4	7	3Ph Y 400V~50Hz	31,3	69
MPWJ 34-15 13-200	8.680.0045	1750	200	2900	20	13	3,4	8,4	3Ph Y 400V~60Hz	29	63,9

#### Top/High/Low series





(\*) Available in various voltages

#### **Equipped with:**

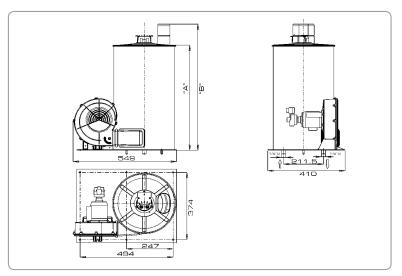
• Complete boilers for high-pressure cleaners

Model	Code	Mo	ax. pressi	Jre	Flow rate		Requested power	Power supply (*)	Thermal power	Coil lenght	Dimension	We	eight
		bar	psi	MPa	l/m	GPM	W					kg	lbs
Тор	8.690.0010	200	2900	20	12	3.17	300	230V ~ 50Hz	49000 Kcal/h	20 m	405 mm (A) - 510 mm (B)	38	85,9
Low	8.690.0001	200	2900	20	15	3.96	300	230V ~ 50Hz	63000 Kcal/h	29,5 m	465 mm (A) - 565 mm (B)	48,5	106,8
High	8.690.0002	200	2900	20	21	5.55	300	230V ~ 50Hz	63000 Kcal/h	36,5 m	600 mm (A) - 690 mm (B)	54	120



#### High 08/Low 08 series





(\*) Available in various voltages

#### **Equipped with:**

• Complete boilers for high-pressure cleaners

Model	Code	Mo	Nax. pressure		Flow	rate	Requested power	Power supply (*)	Thermal power	Coil lenght	Dimension	We	ight
		bar	psi	MPa	l/m	GPM	W					kg	lbs
Low 08	8.690.0069	200	2900	20	15	3.96	300	230V ~ 50Hz	49.000 Kcal/h	28 m	471 mm (A) - 587 mm (B)	50	110,2
High 08	8.690.0070	200	2900	20	21	5.55	300	230V ~ 50Hz	73.500 Kcal/h	34 m	586 mm (A) - 702 mm (B)	62,4	137,5



www.lavorservice.com

The new LavorService catalogue cod. 7.199.1090 is now available, offering a wide range of accessories and universal spare parts compatible with most important branded products on the market.

Moreover, to support the daily job of our partners, we created a special software providing information on: standard accessories supplied of all LAVORWASH products since 1975 and set for ordinary and extraordinary maintenance.

The software can be downloaded for free on-line on the website: **www.lavorwash.com**/Sales Support/lavorservice.





The right technical data of a vacuum cleaner is the vacuum efficiency, that is the mix of different values, i.e. air suction, motor power and depression. Air suction is the vacuumed air volume, commonly expressed in litres per seconds (I/sec) and it is the result of the average air speed multiplied by hose diameter. The depression is the vacuum power (it can be defined as the vacuum power to collect dirt) and it is commonly expressed in kPA or in mbar. It is an inverse relation to air suction: the narrower the flex diameter, the least

vacuumed air volume but the best strength to pick up dirt.

Power motor is expressed in Watt and it is not proportional to vacuumefficiency!

If the vacuum cleaner is not well-done, it wastes a lot of electric power without having the best performances possible. Summing up, the vacuum cleaner efficiency is a relationship between air suction (resulting in multiplication of pressure and air suction) and motor power. All our vacuum cleaners have a top efficiency and are manufactured considering essence and user's benefit.

#### Fixed or tilting trolley, which one to choose?

The choice of the trolley must be made considering the type of use needed. Generally, tilting trolley is much more useful to collect dust and solids, because the tilting tank make it easier the emptying or pouring. The fixed trolley is better for liquids vacuuming, because it is equipped with drain hose system, emptying is fast and step by step, avoiding the effort of lifting the tank.

# What kind of tank material is to be preferred?

Our vacuum cleaner range includes plastic tanks (polypropylene or PP) or stainless steel tanks. The PP tank is flexible, shock proof and resistant to chemical products. It is recommended for frequent moving uses or vacuuming of particularly aggressive chemicals (for example in combination with a single disc machine). The stainless steel tank is more rigid, steadier, resistant to mechanical abrasion and it is aesthetically agreeable. It is recommended for static use, with abrasive materials or in a public place.

#### What safety vacuum cleaners are?

Safety vacuuming means that the product is entirely certificated (not the filter only, but the entire machine) in order to comply with the strictest directives and European rules that regulate vacuuming of dust dangerous for health, divided into two groups: hazardous dust and explosives ones. Hazardous dust are also divided in: dust with OEL\* value and cancerogenous dust (asbestos is considered a cancerogenous dust only in Germany and it needs another classification and certification). An example of this dust is asbestos, food or wood preservatives and fertilizers.

Explosive dust is for example wood dust, aluminium dust and flour.









# Number of motors:

It explains how

many motors there are in the vacuum cleaner. Ignition is independent in order to increase progressively the performances.

The working system (whenever it is more than one) is in parallel, so the air suction increases and the depressure is steady whenever the motors are progressively switched on.

# ELECTROSTATIC

#### Anti electrostatic current device

Dust rubbing at high speed against vacuum cleaner walls creates a magnetic

field that neutralizes on the user with small and annoying discharges also through plastic material. This certified system removes this phenomenon on the machine, granting best comfort and safety for the user.



#### Paper collector filter

Allows filtering and collection (with a valve) of rough dirt without dirty the tank

whenever it is time to replace it.

It is useful for dry waste, also in combination of other thinner filters.



#### **Cloth filter**

The cloth consistency and its shape allow a simple cleaning phase and the re-

usage of the filter.

It can be used only for vacuuming dry waste; if combined with nylon filter it is possible to work for a longer period of time.



#### Cartridge filter

The continuous folders arranged in circle allow a higher filtering surface in a

smaller area.

More cleaning autonomy with a thin filtering action. It can be used only for vacuuming dry waste and it is re-usable.



#### **HEPA** filter

High Efficiency Particulate Arrestance. Hepa filter is 99,97% efficient until 0,3 micron impurities.



#### Multipurpose washable filter

It combines all the advantages of the cartridge filter but with the plus that it can vacuum both dry and wet at the

same time.

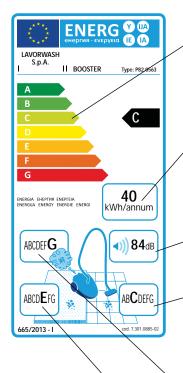
It can be washed with tap water.



#### Filter shaker

It clears filter from dust without touching it or opening the vacuum cleaner; the

vacuum efficiency is kept at max.



#### • The energy rating

Based primarily on energy consumption, with a penalty for low pick-up

#### • Annual energy usage

The amount of energy the vacuum will use over the course of a year.

#### Noise

The noise level produced by the machine in decibels.

#### • Pick-up Hard floors/crevices

The rating of how much dust the machine picks up from hard floors and crevices.

#### • Emissions

The amount of dust in air emitted from the machine's exhaust.

#### • Pick-up - Carpets

The rating of how much dust the machine picks up from carpets.

# Number of motors P = Plastic I = Stainless steel



Code	Model	Page	Voltage	Motor power	Column depresion	Air suction	Tank capacity	Noise level	Packaging L×1×H	Packaging weight	Packaging weight	Pieces for pallet
			V - Hz	W / W max	kPa/mmH <sub>2</sub> 0	l/s	- 1	dB (A)	cm	kg	lbs	N°
8.244.0001	BOOSTER	68	230V - 50Hz	900/1000	22 / 2200	38 l/s	151	69 dB (A)	39x37x47	7,5	16,5	24
8.214.0501	WHISPER V8	69	230V - 50Hz	1100 / 1300	27 / 2700	56 l/s	151	55 dB (A)	49x39x42	9,5	20	20
8.239.0008	WINDY 265 PF	72	230V - 50Hz	2000 / 2400	22 / 2200	130 l/s	65	79 dB (A)	60x48x87	18,8	41	8
8.239.0001	WINDY 265 IF	73	230V - 50Hz	2000 / 2400	22 / 2200	130 l/s	65	79 dB (A)	60x48x87	19,8	44	8
8.240.0001	WINDY 365 IR	74	230V - 50Hz	3000 / 3600	22 / 2200	195 l/s	65	79 dB (A)	65x55x104	25,5	56	4
8.225.0002	ARES IF	76	230V - 50Hz	1200 / 1400	22 / 2200	53 l/s	201	75 dB (A)	38x37x62	11	24	18
8.222.0522	KRONOS IF	77	230V - 50Hz	1200 / 1400	24 / 2400	54 l/s	35	71 dB (A)	47x47x62	13	28	18
8.215.0501	ZEUS IF	78	230V - 50Hz	1200 / 1400	24 / 2400	53 l/s	501	71 dB (A)	64x54x92	21,5	47	4
8.216.0502	DOMUS IF	79	230V - 50Hz	2000 / 2400	24 / 2400	108 l/s	781	74 dB (A)	75x60x103	30,5	67	4
8.213.0501	DOMUS IR	80	230V - 50Hz	2000 / 2400	24 / 2400	108 l/s	781	74 dB (A)	75x60x103	33,5	74	4
8.212.0508	TAURUS PR	81	230V - 50Hz	3000 / 3600	24 / 2400	162 l/s	77	76 dB (A)	75x60x103	32,5	71	4
8.212.0501	TAURUS IR	82	230V - 50Hz	3000 / 3600	24 / 2400	162 l/s	781	76 dB (A)	75x60x103	34,5	76	4





Code	Model	Page	Voltage	Mator power	Column depresion	Air suction	Tank capacity	Noise level	Packaging L x l x H	Packaging weight	Packaging weight	Pieces for pallet
			V - Hz	W / W max	kPa/mmH <sub>2</sub> 0	I/s		dB (A)	cm	kg	lbs	N°
8.212.0523	TAURUS IR 2 Way	83	230V - 50Hz	3000 / 3600	24 / 2400	162 l/s	781	76 dB (A)	75x60x103	32	70	4
8.220.0501	APOLLO IF	85	230V - 50Hz	1200 / 1400	24 / 2400	53 l/s	50	71 dB (A)	64x54x92	24	53	4
8.221.0508	SOLARIS IF	86	230V - 50Hz	2200 / 2400	24 / 2400	108 l/s	781	74 dB (A)	75x60x103	37	82	4
8.221.0501	COSTELLATION IR	87	230V - 50Hz	2200 / 2400	24 / 2400	108 l/s	781	74 dB (A)	75x60x103	37	82	4

#### Special voltage

#### 110V & 120V~50/60 Hz

8.225.0009	ARES IW	76	110-120V - 50-60Hz	1200 / 1400	21,6 / 2200	53 l/s	201	75 dB (A)	38x37x62	11	24	18
8.222.0527	KRONOS IF	77	110-120V - 50-60Hz	1200 / 1400	23,6 / 2400	54 l/s	35	71 dB (A)	47x47x62	13	28	18
8.215.0506	ZEUS IF	78	110-120V - 50-60Hz	1200 / 1400	21,6 / 2200	53 l/s	501	71 dB (A)	64x54x92	21,5	47	4
8.216.0526	DOMUS IF	79	110-120V - 50-60Hz	2000 / 2400	22 / 2240	108 l/s	781	74 dB (A)	75x60x103	30,5	67	4
8.213.0516	DOMUS IR	80	110-120V - 50-60Hz	2000 / 2400	22 / 2240	108 l/s	781	74 dB (A)	75x60x103	33,5	74	4



# Professional vacuum cleaners LavorPro Booster and Whisper were conceived to meet the needs of floor care sector.



It melts successfully the main quality of professional products together with the indisputable advantages of small size, without penalizing the capacity of the collection tank.

Effective filtering and silenced operation are the salient features of BOOSTER, ensured by the ultra-silenced motor and washable filter that ensures high degree of filtration and easy cleaning.

It is equipped with a wide range of accessories and pneumatic filter shaker that cleans the filter without opening the vacuum cleaner, ensuring maximum and constant suction power.

WHISPER, small and powerful dry professional vacuum cleaner: light and handy but effective as other more powerful vacuum cleaners, thanks to its high-efficiency engine. Extreme noiselessness and filtering efficiency are Whisper main features. In fact, its innovative multi-level filtering system (cartridge filter, collector filter and brush coal filter) enables to return purified and healthy air to the environment.

It is equipped with socket for accessories like i.e. electrical brush and with integral accessories holder, full collector filter indicator and separate 15 mt. cable.

Ideal for professionals who are looking for performance and reliability, BOOSTER are WHISPER are ideal for small shops, cleaning contractors as well as car washes or supermarkets, schools, hospitals, gyms, hotels, bars and restaurants.













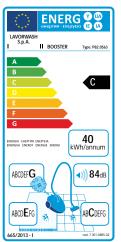


#### **Optional:**

• code. 5.212.0023 Paper collector filter set (10 pcs)



Watch the video on youtube: www.youtube.com/lavorpro



#### **Equipped with:**

- Silenced single stage motor (high efficiency). Pneumatic filter shaker. Washable filter. Integrated accessory holder.
- Shock and overturn proof design. Traceless wheels.

	Booster
code	8.244.0001
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	1 - 900 (1000) W
column depression	22 kPa/2200 mmH <sub>2</sub> O
air suction	38 l/s
total volume/dust	15 l./8 l.
dimension/weight	36x35x47 cm / 5,5 kg





#### **Equipped with:**

- Ultra silenced single stage motor (high efficiency).
- Paper and cartridge filter. Full collector filter indicator.
- Exaust air filter. Integrated accessory holder. Quick power cable (15 m) replacing system. • Shock & overturn proof design. • Traceless wheels.

Stanaara	equipment:











- code. 3.752.0092 HEPA filter
- code. 5.212.0023 Paper collector filter set (10 pcs)
- code. 3.754.0081 Brush carpet Turbo brush Type 2

	Whisper V8
code	8.214.0501
voltage	230-240V ~ 50Hz
n°motors - power (max)	1 - 1100 (1300) W
column depression	26,5 kPα/2700 mmH <sub>2</sub> O
air suction	56 l/s
total volume/dust	15 l./10 l.
dimension/weight	47x34x36 cm / 5,5 kg

ABCDEF **G** 

ABC**D**EFG

ENERG O

D

43 kWh/annum

(1)) 76dB

AB**C**DEFG



WINDY: New commercial wet & dry range of vacuum cleaners



WINDY range is the new line of commercial vacuum cleaners suitable for wet and dry applications: three models equipped with 2 or 3 professional single stage motor (from 2,4 up to 3,6 kW), stainless steel or anti shock plastic tank, tilting or fixed tank: WINDY are mainly designed for daily light industrial use and are perfectly suited to the most common demand of cleaning contractors, garages, workshops etc...

They are equipped with the new manual RF (reverse flow) filter cleaning system, granting high cleaning efficiency and longer lifespan of the motors.

Practical in every situation, the new WINDY range offers accessories holder, cable holder and a new rotating ON/OFF switch, simple and resistant to daily use.

Equipped with professional accessories and professional filter, WINDY is the answer to your requests!

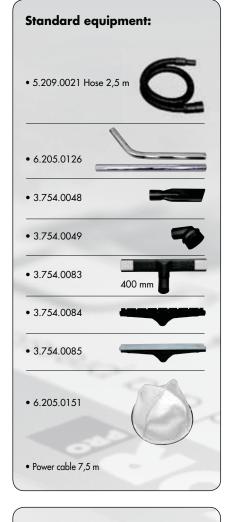






#### Windy 265 PF





#### Equipped with:

- 2 high efficiency by pass motors. Suction system with by-pass cooling. Filter cleaning system. Plastic tank (PP). Static electric shock inhibitor. Shock proof trolley. Liquid float valve. Cloth filter. 7,5 m power cable. Traceless wheels.
- Accessories Ø 40. Handy accessory holder.

#### **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.209.0177 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter



Watch the video on youtube: www.youtube.com/lavorpro

	Windy 265 PF
code	8.239.0008
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	2 - 2000 (2400) W
column depression	22 kPα/2200 mmH <sub>2</sub> O
air suction	130 l/s
total volume/dust/liquid	65 l./30 l./40 l.
dimension/weight	44x46x96 cm / 13 kg

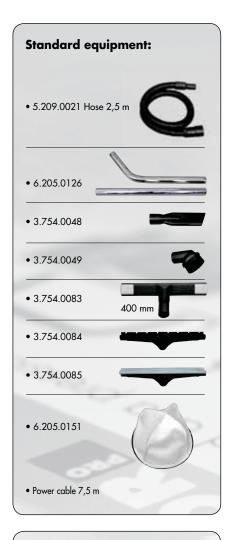


## Windy 265 IF



## **Equipped with:**

- 2 high efficiency by pass motors. Suction system with by-pass cooling. Filter cleaning system. S/S tank. Static electric shock inhibitor. Shock proof trolley.
- Liquid float valve. Cloth filter. 7,5 m power cable. Traceless wheels.
- Accessories Ø 40. Handy accessory holder.



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.209.0177 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter



	Windy 265 IF
code	8.239.0001
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	2 - 2000 (2400) W
column depression	22 kPα/2200 mmH <sub>2</sub> O
air suction	130 l/s
total volume/dust/liquid	65 l./30 l./40 l.
dimension/weight	44x46x96 cm / 14,5 kg





## **Equipped with:**

• 3 high efficiency by pass motors. • Suction system with by-pass cooling. • Filter cleaning system. • S/S tank. • Static electric shock inhibitor. • Tilting tank. • Fully removable tank. • Shock proof trolley. • Liquid float valve. • Cloth filter. • 7,5 m power cable. • Traceless wheels. • Accessories Ø 40. • Handy accessory holder.



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.209.0177 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter



	Windy 365 IR
code	8.240.0001
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	3 - 3000 (3600) W
column depression	22 kPα/2200 mmH <sub>2</sub> O
air suction	195 l/s
total volume/dust/liquid	65 1./30 1./40 1.
dimension/weight	62x51x100 cm / 20 kg





The new Professional range of Lavor PRO vacuum cleaners provides the solution for every kind of heavy duty daily use.

The models of the wet and dry series are equipped with 1 up to 3 double stage motor (1.2 to 3.6 kW), different tank capacities (20-35-50 and 78 l.), tilting or fixed tank and PPL antishock or stainless steel tanks. Designed to be user friendly, they are equipped with ergonomic handle, big wheels and stable trolley offering the final answer to the needs of cleaning contactors, industries, workshops, car washing station etc. The accessories sets allowing all the different operation of wet and dry suction , are designed to be stressless for the end user (using longer extension pipes) and can easily fit and change quickly one to the other. The antischock feature has to be considered a big advantage when metal dust , flour and all the different types of dirt creating ESD electrostatic discharge are collected inside the tank. This feature avoids shocks to the end user, making usage easier.

Wide cloth filter bag (standard) grants good performances of the motor also when it is used for a long period; HEPA, cartridge, nylon, sponge and collector bag can be equipped easily (Optional). The filter area is reachable easily and the wide float seat grants stability on the floor during filter cleaning session.

The ANTIFOAM device (optional) must be used in case of mixture chemical/water suction, avoiding the foam to reach motor.



## **Ares IF**



## **Equipped with:**

- Silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Static electric shock inhibitor. Shock proof trolley. Liquid float valve. Washable filter. Traceless wheels. Accessories Ø 35



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.212.0043 Cloth filter
- code. 5.212.0006 Cartridge filter
- code. 5.212.0010 HEPA filter
- code. 3.754.0205 Brush flor/carpet with wheels
- code. 3.754.0081 Brush carpet Turbo brush Type 2



	Ares IF
code	8.225.0002
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	1 - 1200 (1400) W silenced two stage motor
column depression	21,6 kPα/2200 mmH <sub>2</sub> O
air suction	53 l/s
total volume/dust/liquid	20 l./14 l./16 l.
dimension/weight	34,5x34,5x66 cm / 8 kg



## **Kronos IF**



## **Equipped with:**

- Silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Professional closing hooks. Static electric shock inhibitor. Shock proof trolley.
- Liquid float valve.
   Washable filter.
   Traceless wheels.
   Accessories Ø 35



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.212.0094 Nylon filter
- code. 5.209.0105 Cloth filter
- code. 5.212.0006 Cartridge filter
- code. 5.212.0010 HEPA filter
- code. 6.205.0011 foam filter (liquid)
- code. 3.754.0004 Nozzle
- code. 3.754.0081 Brush carpet Turbo brush Type 2



	Kronos IF
code	8.222.0522
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	1 - 1200 (1400) W silenced two stage motor
column depression	21,6 kPa/2200 mmH <sub>2</sub> O
air suction	54 l/s
total volume/dust/liquid	35 l./18 l./20 l.
dimension/weight	45x45x60 cm / 9,5 kg

**Standard equipment:** 



## **Zeus IF**





## **Equipped with:**

- Silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Professional closing hooks. Static electric shock inhibitor. Drain hose system.
- Shock proof trolley. Liquid float valve. Cloth filter. 10 m power cable. Easy standing head (during filter cleaning). Traceless wheels. Accessories Ø 40

## Optional:

- code. 5.212.0022 Paper collector filter set
- code. 5.212.0094 Nylon filter
- code. 5.212.0020 Washable filter
- code. 5.212.0006 Cartridge filter
- code. 5.212.0010 HEPA filter



	Zeus IF
code	8.215.0501
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	1 - 1200 (1400) W
column depression	21,6 kPα/2200 mmH <sub>2</sub> O
air suction	53 l/s
total volume/dust/liquid	50 l./21 l./35 l.
dimension/weight	62x51x85 cm / 16,5 kg



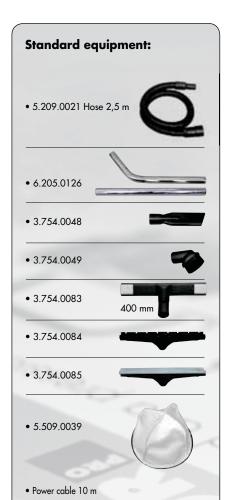






## **Equipped with:**

- 2 silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Professional closing hooks. Static electric shock inhibitor. Drain hose system.
- Shock proof trolley. Liquid float valve. Cloth filter. 10 m power cable. Easy standing head (during filter cleaning). Traceless wheels. Accessories Ø 40



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0021 Washable filter
- code. 5.212.0034 HEPA filter



	Domus IF
code	8.216.0502
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	2 - 2000 (2400) W silenced two stage motor
column depression	22 kPa/2240 mmH <sub>2</sub> O
air suction	108 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x96 cm / 23 kg





## **Equipped with:**

- 2 silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Professional closing hooks.
   Static electric shock inhibitor.
   Tilting tank.
   Fully removable tank.
   Shock proof trolley.
   Liquid float valve.
   Cloth filter.
   10 m power cable.
   Easy standing head (during filter cleaning).
   Cable holder.
- Traceless wheels. Accessories Ø 40



## **Optional:**

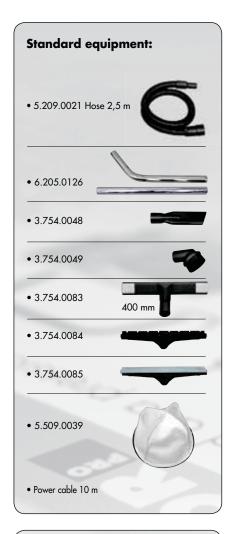
- code. 5.212.0022 Paper collector filter set
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0021 Washable filter
- code. 5.212.0034 HEPA filter



	Domus IR
code	8.213.0501
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	2 - 2000 (2400) W silenced two stage motor
column depression	22 kPα/2240 mmH <sub>2</sub> O
air suction	108 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x99 cm / 26 kg



• 3 silenced two stage motor. • Suction system with by-pass cooling. • Plastic tank (PP). • Professional closing hooks. • Tilting tank. • Fully removable tank. • Shock proof trolley. • Liquid float valve. • Cloth filter. • 10 m power cable. • Easy standing head (during filter cleaning). • Cable holder. • Traceless wheels. • Accessories Ø 40



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0021 Washable filter
- code. 5.212.0034 HEPA filter



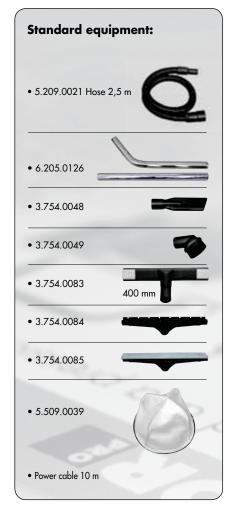
	Taurus PR
code	8.212.0508
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	3 - 3000 (3600) W silenced two stage motor
column depression	22 kPa/2240 mmH <sub>2</sub> O
air suction	162 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x99 cm / 25 kg





## Equipped with:

- 3 silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Professional closing hooks.
   Static electric shock inhibitor.
   Tilting tank.
   Fully removable tank.
   Shock proof trolley.
   Liquid float valve.
   Cloth filter.
   10 m power cable.
   Easy standing head (during filter cleaning).
   Cable holder.
- Traceless wheels. Accessories Ø 40



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0021 Washable filter
- code. 5.212.0034 HEPA filter

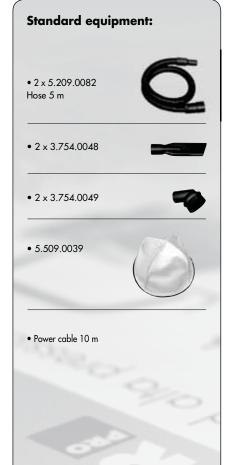


	Taurus IR
code	8.212.0501
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	3 - 3000 (3600) W silenced two stage motor
column depression	22 kPα/2240 mmH <sub>2</sub> O
air suction	162 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x99 cm / 27 kg



## Taurus IR 2 Way





## **Optional:**

- code 6.205.0126 Ø 40 chromium plated steel curve and extension pipe kit
- code 6.205.0121 Ø 40 complete accessories kit (holder accessories, floor brush, wet tool, carpet tool)
- code. 5.212.0093 Cloth filter for fine dust.



Equipped with:
• 3 silenced two stage motor. • Suction system with by-pass cooling. • S/S tank

- 3 silenced two stage motor.
  Suction system with by-pass cooling.
  S/S tank.
  Professional closing hooks.
  Static electric shock inhibitor.
  Tilting tank.
  Fully
- removable tank. Shock proof trolley. Liquid float valve. Cloth filter. 10 m power cable. Easy standing head (during filter cleaning). Cable holder.
- Traceless wheels. Accessories Ø 40

	Taurus IR 2 Way
code	8.212.0523
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	3 - 3000 (3600) W silenced two stage motor
column depression	22 kPa/2240 mmH <sub>2</sub> O
air suction	162 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x99 cm / 27 kg



## Injection extraction range



Lavorwash professional extraction/injection machines: **Apollo**, **Solaris** and **Constellation**, the real solution to clean any type of textiles!

Machines equipped with 50 and 78 liters stainless steel tank, 1 or 2 double stage motors, 1 or 2 detergent pumps to assure always the right flow of injected chemical.

Provided with a full range of accessories capable to suit each deep cleaning textile application: carpets, vehicle seats, sofas, tents, chairs, mats, etc ....

To be used in the **HO-RE-CA**, **Automotive** and **Industrial** cleaning, they will perfectly fit your requirements.





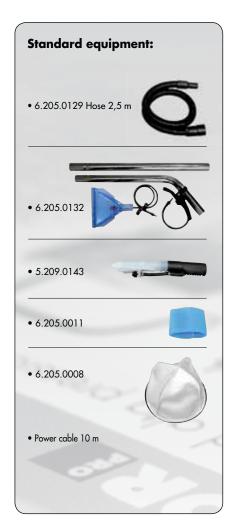




## **Apollo IF**



• Silenced two stage motor. • Suction system with by-pass cooling. • S/S tank. Detergent pump (1x32W – 0,8 l/m – 3,5bar) • Professional closing hooks. • Static electric shock inhibitor. • Drain hose system. • 11 l. detergent tank. • Shock proof trolley. Liquid float valve. • Cloth filter. • 10 m power cable. • Easy standing head (during filter cleaning). • Traceless wheels. • Accessories Ø 40



## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.212.0094 Nylon filter
- code. 5.212.0020 Washable filter
- code. 5.212.0006 Cartridge filter
- code. 5.212.0010 HEPA filter

	Apollo IF
code	8.220.0501
voltage	220-240V ~ 50-60Hz
n°motors - power (max)	1 - 1200 (1400) W
column depression	21,6 kPα/2200 mmH <sub>2</sub> O
air suction	53 l/s
total volume/dust/liquid	50 l./21 l./35 l.
dimension/weight	62x51x85 cm / 19 kg



## Solaris IF







## Standard equipment:

• 6.205.0129 Hose 2,5 m





• 5.209.0143



• 5.509.0039



• Power cable 10 m

## **Optional:**

- code. 5.212.0022 Paper collector filter set
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0021 Washable filter
- code. 5.212.0034 HEPA filter

## Equipped with:

- 2 silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Detergent pump (2x48W 0,7-1,2 l/m 5 bar). Professional closing hooks.
- Static electric shock inhibitor. Drain hose system. 25 l. detergent tank. Shock proof trolley. Liquid float valve. Cloth filter. 10 m power cable. Easy standing head (during filter cleaning). Traceless wheels. Accessories Ø 40

	Soluris IF
code	8.221.0508
voltage	230V ~ 50Hz
n°motors - power (max)	2 - 2200 (2400) W silenced two stage motor
column depression	22 kPa/2240 mmH <sub>2</sub> O
air suction	108 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x96 cm / 29,5 kg







## **Optional:**

**CLOTH FILTER** 

ELECTROSTATIC

- code. 5.212.0022 Paper collector filter set
- code. 5.512.0021 Washable filter
- code. 5.509.1405 Cloth filter for fine dust
- code. 5.212.0093 Nylon filter
- code. 5.212.0034 HEPA filter
- 2 silenced two stage motor. Suction system with by-pass cooling. S/S tank.
- Detergent pump (2x48W 0,7-1,2 l/m 5 bar). Professional closing hooks.
- Static electric shock inhibitor. Tilting tank. Fully removable tank. 11 l. detergent tank. • Shock proof trolley. • Liquid float valve. • Cloth filter. • 10 m power cable. • Easy standing head (during filter cleaning). • Traceless wheels. • Accessories Ø 40.

	Costellation IF
code	8.221.0518
voltage	230V ~ 50Hz
n°motors - power (max)	2 - 2200 (2400) W silenced two stage motor
column depression	22 kPα/2240 mmH <sub>2</sub> O
air suction	108 l/s
total volume/dust/liquid	78 l./35 l./48 l.
dimension/weight	62x51x99 cm / 29,5 kg





## Flexible hose Ø 35

Code	Description	m	Ø
3.753.0063	Roll of flexible hose without swivel	30	35

Code	Description	Ø
3.752.0118	Sleeve tank side	35
3.752.0028	Swivel straight accessories side	35
3.753.077	Swivel curved accessories side	35



## Flexible hose Ø 40

Code	Description	m	Ø
3.753.0038	Roll of flexible hose without swivel	30	40

Code	Description	Ø
3.754.0047	Sleeve tank side	40
3.754.0046	Swivel straight accessories side	40

## Complete flexible hose Ø 40



Code	Description	m	Ø
5.209.0127	Flexible hose with swivel	4	40
5.209.0127	riexible nose with swivel	4	40
5.209.0082	Flexible hose with swivel	5	40
6.205.0130	Flexible hose with swivel for Injection extraction	5	40
6.205.0131	Flexible hose with swivel for Injection extraction	10	40

## Wet & dry vacuum cleaners







 $\varnothing$  40 Spacer for plastic bag 58 l. (for Domus/Taurus/Solaris/Costellation models) This accessory is necessary when using collector bag: the use of collector bag is not possible without PVC spacer.

The use of the collector bag grants easy filter cleaning and its quick replacement whenever necessary, saving time also during the operation of tank cleaning.



Ø 40 Gangway tool (only for Domus IR/Taurus PR/ Taurus IR/Costellation IR models)

A set made of special accessory with front and back squeegee + a flex connection hose in order to vacuum easily and quickly water and liquid from the floor.

0.911.0210 front squeegee strip with hole 0.911.0211 rear squeegee strip without hole

## Gangway tool (only for liquid suction)

Code 0.110.0062







## Turbo brush Ø 35

Code 3.754.0081

Ø 35 270 mm Turbo brush (for Booster, Sahara, Whisper, Silent and Ares models)

This special brush grants top results, because it has an additional small rotary brush creating a sweeping effect that helps effective suction.





## **Antifoam device**

Code 0.110.0020

Anti foam device (for Zeus, Domus, Taurus, Apollo, Solaris and Costellation models)

This device avoids the forming of foam that may affect the operation of the float.



When working conditions and dirt type are extreme, dangerous or difficult to manage, then the VLP range is the solution to all the problems. Innovative filtering systems, liquid waste management, toughness construction and (for some models) the possibility to work with dangerous dusts, set new standards in the industrial sector regarding extensive working expectation, productivity, filtering capacity and efficiency.

Why wider filtering area is not making automatically a better machine?

In the industrial sector, productivity, resistance and breakeven expectations are growing.

The ideal vacuum would be then a machine filtering any kind of dust (also the thinnest) being able to work continuously without the need to clean the filter and without any maintenance.

It is more important to get close effectively to this target rather than the way we can reach this. This is the reason why is useless having a big filtering area if the filter is still clogging up fast and more often I need to stop working to clean it.

In our machines we developed the best prevention of the problem (avoiding dust is reaching quickly the filter) rather than trying a solution afterwards (since the filter is clogging up quickly, extending the filtering area it is supposed to extend the effectiveness). It doesn't matter how wide is the filter, but for how long can work the machine without the need to clean the filter...

And with this issue, we are the best.

## When either more airflow or more depressure is necessary?

The airflow helps the dirt transport trough long pipes. Longer is the hose, better is bigger airflow; still with light dust it is better having lower depressure: the inlet air speed will be lower, the harder the dirt is getting in touch with the filter.

When residuals have high specific weight, depressure is more important than airflow to win gravity force of dirt attached to the surface.



A safety vacuum cleaner is intended a machine entirely certified (so not only the filter, but the whole machine) to comply hard EU directives and norms regulating vacuuming hazardous dust split in two big groups as dangerous dust and explosive dust.

Dangerous dust is split again in: dust with OEL\* value and cancerogenic dust (only in Germany asbestos is considered a cancerogenic dust for which a further classification and certificate is necessary).

Some examples of these dust are asbestos, food and wood preservatives and fertilizer.

Explosive dust are for examples wood dust, aluminium dust and flour.

## Industrial Wet & dry vacuum cleaners









## **Number of motors:**

It explains how many motors there are in the vacuum cleaner.

Ignition is independent in order to increase progressively the performances.

The working system (whenever it is more than one) is in parallel, so the air suction increases and the depressure is steady whenever the motors are progressively switched on.



## Cloth filter

The cloth consistency and its shape allow a simple cleaning phase and the re-usage of the filter.
It can be used only for vacuuming dry waste; if

combined with nylon filter it is possible to work for a longer period of time.



## Multipurpose washable filter

It combines all the advantages of the cartridge filter but with the plus that it can vacuum both dry and wet at the same time.

It can be washed with tap water.



## Cyclonic vacuuming system (international copyright)

Dust is getting in tangentially inside the filtration chamber and starts turning around fast due to

centrifugal and gravity force, the dirt falls down screwing into the container without reaching the centre.

In order to delay the contact between the dust with the filter, there is a cylindrical protection (that covers it completely) with holes on the top. In the inner completely open bottom area, the air speed coming up to the filter is very low.

The proof of the effectiveness of this system is the remaining cake in the tank completely flat: there is no sensible vacuuming at the centre while in other machines an inverted cone cake

shaped is produced due to dust coming back up to the filter sucking it quickly. Incredible extensive working sessions still with thin dust without cleaning the filter.



## Pneumatic filter shaker (international copyright)

Through the selector, the airflow is inverted to feed an internal pneumatic hammer that shakes and blows the filter, cleaning it again completely. It is not necessary to touch the filter or worst to clean it outside the machine spreading again dust everywhere.



## **Automatic liquid draining**

When filter shaker is not in use, the airflow inverter put the tank in pressure and push liquids out through the faucet at the bottom of the tank.

With optional integrated submersible pump tank, the draining is continuous and without stopping working.

With this accessory it is possible to push out completely also melting residual that pump won't pick up.



## **Antistatic machines and accessories**

Using specific conductive materials and engineering, there's the prevention of ignition sparks from the machine side, up to the end of

any tool available for this machine range.



## ATEX (ATmospheres EXplosibles) vacuum certificate

Machine can safely working in areas (ATEX zone 2 or 22) where potential explosive atmosphere

are present. The classification of the areas where machine will be installed accordingly with EU directives and amendments is in charge to the user. Important: this certificate allows only to install the machine and not to pick up potential explosive dust for which a TYPE 22 certified product is mandatory.

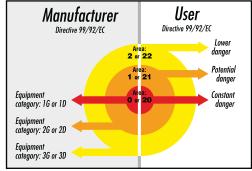


## **TYPE 22 vacuum certificate**

All the machine (not only portion or just the filter) is complying EU directive and norms that describe applications and working conditions. Talking about TYPE 22 means machine is

complying together ATEX directive for zone 22 and EU directive to be able to work with dangerous dust (M class): further to free installation of the machine in an area where is not frequent but possible the presence of explosive atmosphere, it is allowed to pick up potential explosive air/dust mixture.

The classification of the areas where machine will be installed accordingly with EU directives and amendments is in charge to the user.



Type of explosive atmospheres

G (gas): mixture of gas/air, steam/air or fog/air - area 0,1 and 2

D (dust): mixture of dust/air - area 20,21 and 22

\*OEL (Occupational Exposure Limit) it is a value (expressed in mg/m3) that tells the maximum concentration of dust in the working area when extended exposure is not dangerous for the operator. Lower is the OEL value, more dangerous is the dust.



## Industrial Wet & dry vacuum cleaners

## **Nomenclature**

P = Pneumatic

S = Universal (motor)

D = Induction (motor)

M = Single phase (motor)

T = Tri-Phase (motor)
V = Varnishing (tank)

X = S/S (tank)

Liters(tank) x 100 = 2400 W

SMX 77 2-24 SH

Dust class

Filter shaker

n° Motor







SMV50 2-24 SM



DMX80 1-22 DTX 80 1-30

Code	Model	Page	Voltage	Abs. Power	Column depression	Suction air	Tank capacity	Noise level	Filtering surface	. Packaging	Packaging weight	Packaging weight	Pieces for pallet
			V~Hz (Ph)	W	kPa	l/s		dB(A)	cm <sup>2</sup>	cm L x l x H	kg	lbs	n°
0.056.0002	SMX77 2-24	94	230 V~50-60 Hz (1Ph)	2000	24 kPa	108 l/s	77 l.	74 dB(A)	4300 cm <sup>2</sup>	70x91x141	66	145,5	1
0.056.0004	SMX77 3-36	94	230 V~50-60 Hz (1Ph)	3000	24 kPa	162 l/s	77 l.	76 dB(A)	4300 cm <sup>2</sup>	70x91x141	67	147,7	1
0.044.0201	SMV50 2-24 SM	95	230 V~50 Hz (1Ph)	2400	22.6 kPa	83 l/s	50 l.	<70 dB(A)	15000 cm²	70x90x151	79,6	175,4	1
0.045.0031	DMX 80 1-22	96	230 V~50 Hz	2200	32 kPa	97 l/s	80	<74 dB(A)	4300 cm <sup>2</sup>	50x50x140	80	176	1
0.045.0032	DTX 80 1-30	96	400 V~50 Hz (3Ph)	3000	32 kPa	97 l/s	80	<74 dB(A)	4300 cm <sup>2</sup>	50x50x140	85	187	1











DTX70 1-30 SH

DTX100 1-30

DTX50 1-30 Ex TYPE22

DTX70 1-30 Ex TYPE22

Code	Model	Page	Voltage	Abs. Power	Column depression	Suction air	Tank capacity	Noise level	Filhering surface	Packaging	Packaging weight	Packaging weight	Pieces for pallet
			V~Hz (Ph)	W	kPa	l/s	- 1	dB(A)	cm <sup>2</sup>	cm L x l x H	kg	lbs	n°
0.045.0203	DTV70 1-30 SH	97	400 V~50 Hz (3Ph)	3000	31.4 kPa	89 l/s	70 l.	<74 dB(A)	12000 cm²	70x90x202	141,4	311,7	1
0.045.0004	DTX100 1-30	98	400 V~50 Hz (3Ph)	3000	31.4 kPa	89 l/s	100 l.	<74 dB(A)	15000 cm <sup>2</sup>	70x90x202	141,4	311,7	1
0.045.0219	DTX50 1-30 Ex TYPE 22	99	400 V~50 Hz (3Ph)	2600	31.4 kPa	89 l/s	50 l.	<74 dB(A)	15000 cm <sup>2</sup>	70x90x152	103	227,1	1
0.045.0217	DTX70 1-30 Ex TYPE 22	99	400 V~50 Hz (3Ph)	2600	31.4 kPa	89 l/s	70 l.	<74 dB(A)	24000 cm <sup>2</sup>	70x90x202	141,4	311,7	1





Models: 3-36











• Calor filter



• Oven kit Ø 40



- 3 silenced two stage motor (SMX 3-36 model). 2 silenced two stage motor (SMX 2-24 model). • Suction system with by-pass cooling. • S/S tank. • Manual filter shaker.
- Professional closing hooks. Static electric shock inhibitor. Liquid float valve. Cloth filter.
- Filters (optional) against thin dust or Hepa. Though integrated accessory storage facility.
- Non-overturning steel structure. Available with body and cover entirely made of S/S AISI 304. • Traceless wheels. • Accessories Ø 50.

SMX77 2-24         SMX77 3-36           code         0.056.0002         0.056.0004           abs. power W         2000         3000           n° / type motor         2x two stages universal         3x two stages universal           column depression         23,6 kPa (2400 mmH2O)         23,6 kPa (2400 mmH2O)           suction air         108 l/s         162 l/s           tank volume/dust capacity/liquid capacity         77 l / 45 l / 50 l         77 l / 45 l / 50 l           noise level         74 dB(A)         76 dB(A)
abs. power W       2000       3000         n° / type motor       2x two stages universal       3x two stages universal         column depression       23,6 kPa (2400 mmH2O)       23,6 kPa (2400 mmH2O)         suction air       108 l/s       162 l/s         tank volume/dust capacity/liquid capacity       77 l / 45 l / 50 l       77 l / 45 l / 50 l
n° / type motor 2x two stages universal 3x two stages universal column depression 23,6 kPa (2400 mmH2O) 23,6 kPa (2400 mmH2O) suction air 108 l/s $162 l/s$ tank volume/dust capacity/liquid capacity 77 l / 45 l / 50 l $77 l / 45 l / 50 l$
column depression       23,6 kPa (2400 mmH2O)       23,6 kPa (2400 mmH2O)         suction air       108 l/s       162 l/s         tank volume/dust capacity/liquid capacity       77 l / 45 l / 50 l       77 l / 45 l / 50 l
suction air     108 l/s     162 l/s       tank volume/dust capacity/liquid capacity     77 l / 45 l / 50 l     77 l / 45 l / 50 l
tank volume/dust capacity/liquid capacity 77   / 45   / 50   77   / 45   / 50
1 P 1 1 V
noise level 74 dB(A) 76 dB(A)
, ,
voltage 230 V~50-60 Hz (1Ph) 230 V~50-60 Hz (1Ph)
$\begin{array}{ll} \text{filtering surface} & 4300 \text{ cm}^2 & 4300 \text{ cm}^2 \end{array}$
filtering capacity 5 µm 5 µm
cable lenght 7,5 m 7,5 m
dimensions / weight 70x91x141cm/66Kg-145.2 lbs 70x91x141cm/67Kg-147.4 lbs







**ELECTROSTATIC** 

**Optional:** 

# Complete fixed front Floating galvanized basket

## **Equipped with:**

• 2 silenced two stage motor. • Suction system with by-pass cooling. • Epoxy varnishing tank. • Automatic filter shaker, restores filtering action quickly without manual operations. • Washable panel filter with cyclone effect: it combines great filtering and high autonomy without intervention. • Depressure gauge. • Static electric shock inhibitor. • Filters (optional) against thin dust or HEPA. • Tough integrated accessory storage facility. • Nonoverturning steel structure. • Steering polyurethan antistain wheels with brake.

	SMV50 2-24 SM
1	
code	0.044.0201
abs. power W	2400
$n^{\circ}$ / type motor	2x two stages universal
column depression	22.6 kPa (2300 mmH2O)
suction air	83 l/s
tank volume/dust capacity/liquid capacity	501/301/351
noise level	<70 dB(A)
voltage	230 V~50 Hz (1Ph)
filtering surface	$15000 \text{ cm}^2$
filtering capacity	M class
cable lenght	10 m
dimensions / weight	62x80x116cm/66,2 Kg-145.9 lbs
200	



## DMX80 DTX80













## **Equipped with:**

- IP 65 silenced turbine motor. Liquid float valve. Washable filter. S/S tank.
- Manual filter shaker. Professional closing hooks. Static electric shock inhibitor. Non-overturning steel structure. Drain hose system. Epoxy varnishing. Steering wheels with brake.



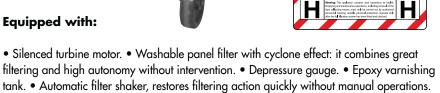


DMX80 1-22	DTX80 1-30
0.045.0031	0.045.0032
2200	3000
1x induction	1x induction
32 kPa (3200 mmH2O)	32 kPa (3200 mmH2O)
97 l/s	97 l/s
80/36/49 lt	80/36/49 lt
74 dB(A)	74 dB(A)
230 V~50 Hz (1Ph)	400 V~50 Hz (3Ph)
4300 cm <sup>2</sup>	4300 cm <sup>2</sup>
5 μm	5 μm
10 m	10 m
50x50x140cm/80Kg -176 lbs	50x50x140cm/85Kg -187 lbs
	0.045.0031 2200 1x induction 32 kPa (3200 mmH2O) 97 I/s 80/36/49 lt 74 dB(A) 230 V~50 Hz (1Ph) 4300 cm² 5 µm 10 m

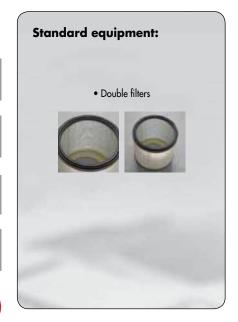
## Industrial Wet & dry vacuum cleaners

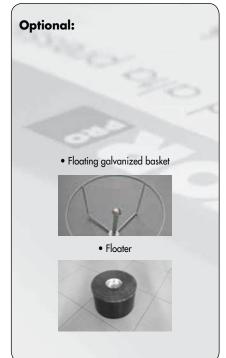






Filters (optional) against thin dust or HEPA.
Automatic water ejection system.
Collector tank lifting lever.
Tough integrated accessory storage facility.
Nonoverturning steel structure.
Steering polyurethan antistain wheels with brake.

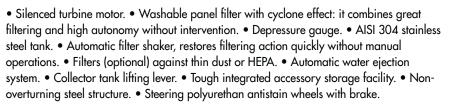


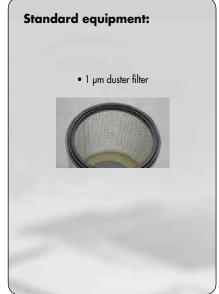


	DTV70 1-30 SH
code	0.045.0203
abs. power W	3000
n° / type motor	1x induction
column depression	31.4 kPa (3200 mmH2O)
suction air	89 l/s
tank volume/dust capacity/liquid capacity	70   / 45   / 60
noise level	<74 dB(A)
voltage	400 V~50-60 Hz (3Ph)
filtering surface	12000 cm <sup>2</sup>
filtering capacity	H class
cable lenght	10 m
dimensions / weight	64x88x168cm/127,2 Kg-280.4 lbs









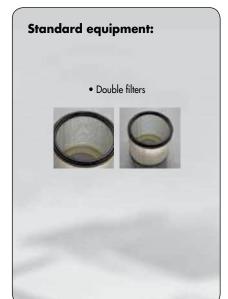


	DTX100 1-30
code	0.045.0004
abs. power W	3000
n° / type motor	1x induction
column depression	31.4 kPa (3200 mmH2O)
suction air	89 l/s
tank volume/dust capacity/liquid capacity	100   / 70   / 90
noise level	<74 dB(A)
voltage	400 V~50 Hz (3Ph)
filtering surface	$15000 \text{ cm}^2$
filtering capacity	1 µm
cable lenght	10 m
dimensions / weight	64x88x168cm/127,2 Kg-280.4 lbs

## Industrial Wet & dry vacuum cleaners







• Approved and certified for areas ATEX 2 and 22 (mixture of dust/air), category 3G and 3D. • Silenced turbine motor. • Washable panel filter with cyclone effect: it combines great filtering and high autonomy without intervention. • Depressure gauge. • AISI 304 stainless steel tank. • Automatic filter shaker, restores filtering action quickly without manual operations. • Filters (optional) against thin dust or HEPA. • Collector tank lifting lever. • Tough integrated accessory storage facility. • Non-overturning steel structure.



ATEX - TYPE 22	DTX50 1-30 Ex TYPE 22	DTX70 1-30 Ex TYPE 22
code	0.045.0219	0.045.0217
abs. power W	2600	2600
n° / type motor	1x induction	1x induction
column depression	22.6 kPa (2300 mmH2O)	31.4 kPa (3200 mmH2O)
suction air	89 l/s	89 l/s
tank volume/dust capacity/liquid capacity	501/301/351	70   / 45   / 60
noise level	<74 dB(A)	<74 dB(A)
voltage	400 V~50 Hz (3Ph)	400 V~50 Hz (3Ph)
filtering surface	15000 cm <sup>2</sup>	24000 cm <sup>2</sup>
filtering capacity	TYPE 22	TYPE 22
cable lenght	10 m	10 m
dimensions / weight	70x90x152 / 103 Kg-227.07 lbs	64x88x168cm / 127,2 Kg-280.4 lbs

Accessories								E22	E22
			SMX 77 2-24	SMX 77 3-36	SMV50 2-24 SM	DTV70 1-30 SH	DTX100 1-30	DTX50 1-30 Ex TYPE22	DTX70 1-30 Ex TYPE22
2	0.144.0028	complete fixed front wet tool with pipe			0			0	
	0.144.0045	floating galvanized basket			0	0	0	0	0
	0.144.0046	floater			0	0	0	0	0
	0.144.0033	painted separating tank 100 l with cover (1x 0.144.0049 requested)					0	0	0
	0.144.0034	painted small scrap tool reduced tank (1x 0.144.0035 requested)					0		
	0.144.0035	painted small scrap tool with plug (1x 0.144.0034 requested) small scrap tool tank plug galvanized chip basket					0		
	0.144.0036						0		
	0.144.0037						0		
	0.144.0038	liquids expulsion lance with gun Ø 25 x 1,8 m					0		
	0.144.0039	Hepa filter (primary-standard)					0	0	
	5.212.0034	Hepa filter	0	0					
	5.212.0021	Washable filter 1 micron	0	0					





# Accessories

see accessories at page 103	0.144.0011 1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14	4	1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14	1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14	0.144.0011   1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14
1			0.144.0011	0.144.0011	0.144.0011
	3.099.1077		3.099.1077	3.099.1077	3.099.1077
8	0.144.0047		0.144.0002	0.144.0001	0.144.0002
	3.753.0050 (EVA COND. Ø 38 - min 5 m. or mult., max 30 m.)	3.753.0050 (EVA COND. Ø 38 - min 5 m. or mult., max 30 m.)	3.753.0051 (EVA COND. Ø 50 - min 5 m. or mult., max 30 m.)	3.753.0053 (PUR ANTIST. Ø 50 - min 5 m. or mult., max 20 m.)	3,753.0054 (PUR ANTIOIL Ø 50 - min 5m. or mult., max 60 m.)
8	0.144.0047	0.144.0047	0.144.0002	0.144.0001	0.144.0002
D	3.099.1077	3.099.1077	3.099.1077	3.099.1077	3.099.1077
Ø 50 mm 0.156.0019 (stendard)					
SMX77 2-24 SMX77 3-36					

SMV 50 2-24 SM		Ø 50 mm			9	~			9		
DTV 70 1-30 SH		(standard)	Y		7				3		see accessories at page 103
DTX 100 1-30				0.144.0008	3.099.1077	0.144.0047	3.753.0050 (EVA COND. Ø 38 - min 5 m. or mult., max 30 m.)	0.144.0047	3.099.1077	0.144.0011	1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14
			0.144.0024		2x - 3.099.1077	2x - 0.144.0047	2x - 0.144.0047 3.753.0050 (EVA COND. Ø 38 - min 5 m, or mult., max 30 m.)	2x - 0.144.0047	2x - 3.099.1077	2x - 0.144.0011	2x - 0.144.0047 2x - 3.099.1077 2x - 0.144.0011 1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14
DIX 50 1-30 EX 1YPE22				0.144.0008	3.099.1077	0.144.0002	3.753.0051 (EVA COND. Ø 50 - min 5 m. or mult., max 30 m.)	0.144.0002	3.099.1077	0.144.0011	1 - 2 - 3 - 5 - 6 - 7 - 9 - 10 - 11 - 12 - 13 - 14
DTX 70 1-30 EX TYPE22						0.144.0007	3.753.0052 (PUR ANTIST. Ø 40 - min 5 m. or mul., max 20 m.)	0.144.0003			15 - 16
			0.144.0024			2x - 0.144.0003	2x - 0.144.0003 3.753.0052 (PUR ANTIST. Ø 40 - min 5 m. or mul., max 20 m.)	2x - 0.144.0003			15 - 16
				0.144.0008	3.099.1077	0.144.0001	3.753.0053 (PUR ANTIST. Ø 50 - min 5 m. or mult., max 20 m.)	0.144.0001	3.099.1077	0.144.0011	1-2-3-5-6-7-9-10-11-12-13-14
				0.144.0008	3.099.1077	0.144.0002	3.753.0054 (PUR ANTIOIL Ø 50 - min 5m. or mult., max 60 m.)	0.144.0002	3.099.1077	0.144.0011	1-2-3-5-6-7-9-10-11-12-13-14
		Ø 70 mm			3.099.1268	0.144.0052	3.753.0087 (PUR COND. Ø 70 - min 5m. or mult., max 20 m.)	0.144.0052	3.099.1268		80
	1	0.144.0050 (Optional)									



EVA CONDUCTIVE lightness and flexibility



PUR ANTISTATIC lightness and moderate flexibility



PUR OIL PROOF Antistatic, oil and abrasion proof



## Accesso

sories								7	
			5MX 77 2-24 SMX 77 3-36	SMV50 2-24 SM	H2 05-1 07 VTG	0E-I 001XIQ	D1X20 1-30 E× 1XbE3	D1X70 1-30 Ex TYPE2	
	0.144.0040	washable filer 1 micran (primary-standard)		S		S	S		
	0.144.0082	washable filter 1 micran (primary-Higher)					•,	S	
	0.144.0084	Hepa filter (secondary-standard)		S			S		
	0.144.0083	Hepa filter (secondary-Higher)					0,	S	
	0.144.0042	dangerous dust bag filer (1×0.144.0034 + 1×0.144.0035 + 1×0.144.0039 requested)				0			
	0.144.0043	small scrop tool bag filler (1x 0.144,0034 + 1x 0.144,0035 requested)				0			
	0.156.0005	oven complete kit Ø 40 (flex/extension pipe, max 180° C)	0						
	0.156.0016	$\perp$					_		
	0.156.0026	heat resistant ext. I 00% insulate Ø 40x I 00cm heat resistant ext. 50% insulate Ø 40x I 00cm	0 0				+		
	0.156.0028		0						
	0.156.0025		0						
	0.156.0022	hear resistant inox tool cm 40 Ø 40	0 0				_		
	0.1.00	ווברו ובסואמיוו האבו ווופו	_	+			_		
	0.156.0004	teflon filter	0						
	5.509.0039	cloth filter	S						
	0.156.0007	steel joint coupling Ø 50	0	0		0	0	0	
	0.156.0008	steel joint coupling Ø 70		0		0	0	0	
	0.156.0009	steel joint coupling Ø 40	0	0		0	0	0	
								ı	

# Industrial Wet & dry vacuum cleaners

# Accessories

Accessories				1		TYPE22	
		VCCLLAMS	SMX 77 2-24	SMV50 2-24 SM	H2 05-1 0\(\text{V}\)TQ	DIX100 1-30 Ex 1	DTX50 1-30 Ex
	0.156.0021	stainless steel chip basket	0				
H	0.156.0019	steel reduction mm 70-50	S				
	0.156.0001	steel cyclone cone	0				
1	0.156.0002	"L" steel pipe Ø 50 L 1200	0				
	0.156.0014	extension steel pipe 50 cm Ø 50	0				
	0.156.0012	nylon oven coupling	0				
	0.144.0085	S/S tank with pump 230V 50HZ and chip basket				0	
	0.144.0086	stainless steel chip basket for tank with pump				0	

S = standard equipment O = optional

S = standard equipment O = optional



## Accessories

-	1	0.144.0012	Ø 50 - steel double curve with joint coupling
	2	0.144.0013	Ø 50 - steel extension with joint coupling
	3	0.144.0014	Ø 50 - steel flat lance mm 500
1	5	0.144.0021	Ø 50 - antistatic rubber conic bend lance
	6	0.144.0022	Ø 50 - antistatic rubber conic lance
-	7	0.144.0015	Ø 50 - antistatic rubber round lance
-	8	0.144.0051	Ø 70 - antistatic rubber round lance
	9	0.144.0019	Ø 50 - antistatic rubber suction lance
	10	0.144.0026	Ø 50 - dust inox floor tool
	11	0.144.0027	Ø 50 - wet inox floor tool
	13	0.144.0017	Ø 50 - PVC flat lance
-	14	0.144.0018	Ø 50 - PVC round brush
	15	3.754.0048	Ø 40 - PVC flat lance
-	16	3.754.0049	Ø 40 - PVC round brush





## Which are key components in a single disc machine?

The procedure to choose the right product for specific application must take into consideration of: the weight (that is the pressure over the brush), the surface to work, the RPM / type of construction of the motor and the transmission type. Generally speaking, the lower is the rotation speed, the most effective is the pressure over the brush and deeper is dirt

With the increasing of rotation speed, lower is the effect of the pressure over the floor.

Different accessories combinations, rotation speed and motor power can provide the solution for any application: from dewaxing or deep scrub, up to polishing or buffing; from the crystallization up to spray cleaning; also carpet cleaning or sanding. Please see application chapter on the next pages.

## How much power is necessary?

There is not a set rule, if not the common sense: higher is the friction over the floor (a combination of type of working, type of surface and type of accessory used), the higher will be the power request to the motor. So more powerful is the motor, the harder the job being able to be done.

## The power is nothing without a control....

Together with its construction simplicity there are the worst danger for the operator who has to control the machine for long working sessions.

Only the perfect components and weights distribution on the machine allows a perfect balanced and ergonomic working posture, without any vibration and any strange effort to keep it in place.

A cheap construction (less strength) not considering the perfect ergonomic for the user, further to the waste of money (less productivity), it's a serious danger for the health!







U

## • Transmission: helical gear system:

Up to 400 RPM the reduction and transmission system is made with Transmission helical gear system. Grants continuous power, long life and

noiselessness of the machine.



## • Constant brush pressure:

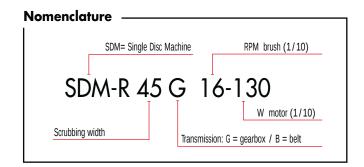
The pressure of brushes on the floor is made by the heavy brush plate that follows irregularity on the floor and gives always the top pressure

without any adjustment still with shorter bristles.



## • Brush speed:

Means Rotation Per Minute of the brush.



Application	Page	Code	Ø brush	Stripping synthetic floor (PVC)	Stripping cork present floor (linoleum)	Wet scrubbing/basic cleaning of stones, files and lino (sensitive floors)	Wet scrubbing/basic cleaning of syn- thetic or non sensitive floors pvc	Crystallizing	Carpet shampooing	Sanding wood	Sanding wood	Spray polishing and buffing
SDM-R 45 G 16-130	107	0.055.0302	430 - 17"	•	•	•	•	•	•	•		
SDM-R 45 G 16-160	107	0.055.0303	430 - 17"	•	•	•	•	•	•		•	
SDM-R 45 G 16-180	107	0.055.0304	430 - 17"	•	•	•	•	•	•			
SDM-R 45 G 40-160	107	0.055.0307	430 - 17"									•

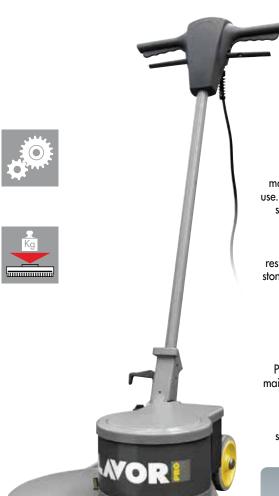




		Absorbed power	Scrubbing width	Brush speed	Brush contact pressure	Handle packaging dimensions	Handle packaging weight	Handle packaging weight	Body packaging dimensions	Body packaging weight	Body packaging weight	Pieces for pallet
Code	Model	W	mm-inch	RPM	g/cm²	LxlxH cm	Kg	lbs	LxlxH cm	Kg	lbs	n°
0.055.0302	SDM-R 45G 16-130	1300	430 - 17"	165	40,8	38x14x114	6,80	14,99	56x46x31	41,00	90,38	16
0.055.0303	SDM-R 45G 16-160	1600	430 - 17"	165	41,3	38x14x114	6,80	14,99	56x46x31	42,00	92,59	16
0.055.0304	SDM-R 45G 16-180	1800	430 - 17"	165	44,3	38x14x114	6,80	14,99	56x46x31	48,00	105,82	12
0.055.0307	SDM-R 45G 40-160	1600	430 - 17"	400	34,9	38x14x114	6,80	14,99	56x46x31	46,50	102,51	16



## **SDM-R 45 G**



Scrubbers

## • SDM-R 45 G:

Complete range of single disc machines professional, sturdy, manageable, practical and simple to use. Ergonomic handle with integrated safety controls. Strong handle joint.

Powerful and noiseless motor

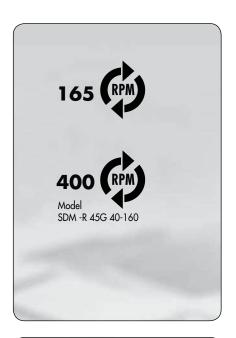
Adapted in order to satisfy all the cleaning requirements, marble restoration and treatment and natural stones, woods and parquet, moquette, dewaxing, hard scrubbing.

**Polishers** 

## • SDM-R 45G 40-160:

Professional single disc machine for maintenance cleaning or for polishing whichever type of natural floor or treating with metalized waxes. Ergonomic handle with integrated safety controls. Strong handle joint. Powerful and noiseless motor





## **Optional:**

 Code 0.955.0001K
 11 I detergent tank (only for low speed models)



Accessories and brushes are not included. For available accessories refer to accessories pages.

	SDM-R 45G 16-130	SDM-R 45G 16-160	SDM-R 45G 16-180	SDM-R 45G 40-160
code	0.055.0302	0.055.0303	0.055.0304	0.055.0307
type	low speed	low speed	low speed	medium speed
brush speed	165 RPM	165 RPM	165 RPM	400 RPM
scrubbing width	430 mm	430 mm	430 mm	430 mm
voltage	230V / 50HZ	230V / 50HZ	230V / 50HZ	230V / 50HZ
abs. power	1300 W	1600 W	1800 W	1600 W
transmission		helical ge	ar system	
brush contact pressure	40,8 g/cm <sup>2</sup>	41,3 g/cm <sup>2</sup>	44,3 g/cm <sup>2</sup>	34,9 g/cm <sup>2</sup>
noise level	60 dB(A)	60 dB(A)	60 dB(A)	60 dB(A)
cable lenght	12 m	12 m	12 m	12 m
body height	280 mm	280 mm	280 mm	280 mm
dimensions / weight	54,2x42,5x120 cm/35 Kg	54,2x42,5x120 cm/41 Kg	54,2x42,5x120 cm/52 Kg	62,5x50,5x120 cm/45 Kg



Accessories	Description	Code	Models	Stripping synthetic floor (PVC)	Stripping cork present floor (linoleum)	Wet scrubbing/basic cleaning of stones, tiles and lino (sensitive floors)	Wet scrubbing/basic cleaning of synthetic or non sensitive floors pvc	Crystallizing	Carpet shampooing	Sanding wood	Sanding cement	Spray polishing and buffing
Brushes (*)												
THE THE	Carpet brush	0.955.0014	SDM-R 45G						x			
	Scrubbing brush PP 0,6 mm	0.955.0007	SDM-R 45G		х	х						
e dimension	Tynex brush	0.955.0004	SDM-R 45G	х			х					
Pad Holder												
	EWU pad holder EWU pad holder	0.955.0016 0.955.0017	SDM-R 45G SDM-R 45G 40-160	х	х	х	х	х			х	х
	Abrasive Disc Holder	0.955.0022	SDM-R 45G							х	х	
Secrit Nice												
Special Disc	Carborondum disc	0.955.0027	SDM-R 45G									
	Carboronaum alsc	0.935.0027	3DM-R 43G								X	
Pads												
	Pad micro fiber 5 pcs Pad beige 5 pcs	6.508.0116 6.508.0032	SDM-R 45G SDM-R 45 G 40-160						х			×
	Pad green 5 pcs	6.508.0039	SDM-R 45G		х		х					
PARTITION .	Pad black 5 pcs	6.508.0046	SDM-R 45G	х								
	Pad silver Inox 5 pcs	6.508.0121	SDM-R 45G					х				
	Emery paper GR24 disc	0.955.0023	SDM-R 45G							х		
	Emery paper GR60 disc	0.955.0024	SDM-R 45G							х		
	Vidia disc GR24	0.955.0026	SDM-R 45G								Х	
	Vidia disc GR36	0.955.0025	SDM-R 45G								Х	
The same of the sa												

X = suitable

(\*): Brushes code 0.955.0014, 0.955.0007 and 0.955.0004 <u>must not be used</u> with medium speed model SDM-R 45G 40-160 (code 0.055.0307)



Accessories				Stripping synthetic floor (PVC).	Stripping cork present floor (linoleum).	Wet-scrubbing/basic cleaning of stones, files and lino (sensitive floors)	Wet-scrubbing/basic cleaning of synthetic or non-sensitive floors (PVC)	Crystallizing	Carpet shampooing	Sanding wood	Sanding cement	Spray polishing and buffing
11 l chemical tank		0.955.0001K	SDM-R 45G 16-130	0	0	0	0		0			
			SDM-R 45G 16-160	0	0	0	0		0			
			SDM-R 45G 16-180	0	0	0	0		0			
Detergent	LCN-800F	3.697.0023	4 X 5 litres	•	•	•	•					
20.0190	LCN-800	3.697.0024	4 X 5 litres	•	•	•	•					
	LCB-740F	3.697.0031	4 X 5 litres			•						
	LCB-900WR	3.697.0030	4 X 5 litres	•								
	LCN-600SVF		4 X 5 litres	•		•	•					
	LCN-700	3.697.0035	4 X 5 litres						•			
	LCN-680AL	3.697.0025	4 X 5 litres			•						•
4 2	LCN-650	3.697.0026	4 X 5 litres				•					
	LCN-640WM	3.697.0027	4 X 5 litres									•

S = standard equipment

O = optional • = available

# **Applications pads**



MICROFIBER PAD - Ideal for "gres & porcelain" and carpet/moquette if used with dried foam shampoo.



**BEIGE PAD - POLISHING - Polyester.** To polish all kinds of floor. Use dry.



**GREEN PAD - INTERMEDIATE CLEANING ACTION - Nylon.** To remove all the old superficial wax, rests, obtaining ready floors to be recoated. Use wet.



**BLACK PAD - WET STRIPPING - Nylon.** For wet stripping of heavy layers of wax. Ideal to remove old floor finish scu and cement marks.





Why cilindric brush?

quality materials.

High speed rotation for a polishing effect; great dirt degrease in floors with grout; possibility to link together the sweeping function; the rotation direction assists forwarding in models without traction.

#### Why disc brush?

Extended mechanical action of the bristles on the floor, ideal for persistent dirt: the special setting of the brush plate allows a balanced gripping effect, assisting easy use in the non traction models. Complete cleaning also next to walls is possible and the compact washing element lower at the sides is studied to scrub also under edges.

#### How a squeegee should be designed?

The shape and the material used grant a perfect drying in every condition, also on floors with grout or when quick U turns are necessary.

The floating body can stay in the machine operating space (compact / room saving)

The manual adjusting system grants a perfect drying on each kind of floors.

#### How long do battery charges last?

It is impossible to determine exactly how long a battery charge lasts and so how long a machine can work in autonomy.

Battery autonomy changes depending on type of surface, dirt quantity, brush type and way in which traction system is used (speed and slope).

Battery life is made up of number of charge cycles (also incomplete), if use conditions, charge and service are perfectly observed.

Manufacturing technology diversifies numbers of cycles, service needed, use/charge conditions and performances.









### Number of disc brushes:

The scrubbing group meets different cleaning

path need with 1, 2 or 3 disc brushes.

**ECO** • Eco Energy System ENERGY no-stop and separate control of water quantity and chemical product concentration with automatic and delayed stop of the supply when the machine stops (Automatic Detergent Measuring System).



#### • Constant brush pressure:

The pressure of brushes on the floor is made by the heavy brush plate that follows irregularity on the floor and gives

always the top pressure without any adjustment still with shorter bristles.



#### Solenoid valve:

Together with the reliable mechanical solution faucet, this system reduce chemical consumption and avoid solution waste. The flow is open

only when brush is working, there is no accidental leak with machine stopped. The system is protected by a filter with easy maintenance.



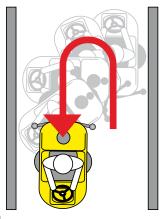
#### Integrated battery charger

Some models are equipped with integrated battery charger, other ones have the predisposition only. It

**CHARGER** is possible to charge batteries in different rooms, without coming back to the same place.

maintenance free technology and it does not require restrictions about the place for battery

batteries that combined with appropriate battery charger grant machine top performances.



# U-turns in closed area

The space (length X width) needed to make a U-turn is the min. width in which it is possible to work with the machine. The smaller this room is, the higher the machine output, because less maneuvering is needed. The technical features of our floor scrubber driers (the front wheel shaft is close to the rear one in the walk behind models and the tight steering radius of ride-on ones) grant the minimum

room for U-turns. On each ride-on models there is an automatic device that lowers speed when turning, raising the safety level also for inexperienced users.



## Integrated battery

Standard integrated battery is built with a

charging. The non stop research allow to use always up-to-date





#### Hour meter

Useful to check work sessions and to plan stops for battery charging. Best output and investment protection.



**BEIGE PAD - POLISHING - Polyester** To polish all kinds of floor. Use dry.



#### Charge meter and battery protection

It informs when the autonomy is finishing, allowing the end of the cleaning task (stopping brushes first and then the rest). It prevents

damages to the batteries, preventing the complete discharge with any kind of technologies.



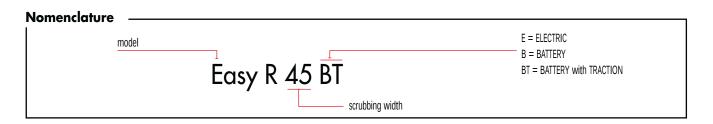
#### **GREEN PAD - INTERMEDIATE CLEANING ACTION**

 Nylon To remove all the old superficial wax, rests, obtaining ready floors to be recoated. Use wet.



**BLACK PAD - WET STRIPPING - Nylon** For wet stripping of heavy layers of wax. Ideal to remove old floor finish scu and cement marks.







		Page	Power supply	Brushes	Scrubbing width	Squeegee width	Max working capacity	Detergent tank capacity	Recovery tank capacity	Packaging	Weight	Weight	pcs × pallet
Code	Model		٧	n°	mm	mm	m²/h - ft²/h	l/gal	l/gal	LxlxH cm / inc	kg	lbs	n°
8.501.0501	Sprinter	114	230V/50HZ	1	290	320	1015-10925	2,8/0,74	5,6/1,48	116X40X36/46x16x14	17	37	10
8.501.0508	Crystal Clean	116	230V/50HZ	1	290	320	1015-10925	2,8/0,74	5,6/1,48	100x40x42/39x16x17	19	42	15
8.518.0004	Quick 36E	118	230V/50HZ	1	360	460	1260-13562	11/2,91	12/3,17	81x56x80/32x22x32	62	135	1
8.518.0003	Quick 36B	118	12V	1	360	460	1260-13562	11/2,91	12/3,17	81x56x80/32x22x32	70	154	1
8.524.3302	Speed 45E Eco	120	230V/50HZ	1	450	800	1575-16952	25/6,61	28/7,39	113x61x110/44x24x43	123	271	1
8.524.0002	Speed 45B	120	24V	1	450	800	1575-16952	25/6,61	28/7,39	113x61x110/44x24x43	73	161	1
8.524.1002	Speed 45B	120	24V	1	450	800	1575-16952	25/6,61	28/7,39	113x61x110/44x24x43	114	251	1
8.527.0003	Free EVO 50E	122	230V/50HZ	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	117	256	1
8.527.0004	Free EVO 50B	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	83	183	1
8.527.0001	Free EVO 50B	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	85	187	1



















Comfort XXS

Comfort XS-R

Comfort S-R

Comfort M

Comfort L

		Page	Power supply	Brushes	Scrubbing width	Squeegee width	Max working capacily	Detergent tank capacity	Recovery tank capacity	Packaging	Weight	Weight	pcs × pallet
Code	Model		٧	n°	mm	mm	m²/h - ft²/h	l/gal	l/gal	LxlxH cm / inc	kg	lbs	n°
8.527.0010	Free EVO 50B	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	138	304	1
8.527.0011	Free EVO 50BT	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	85	187	1
8.527.0002	Free EVO 50BT	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	87	191	1
8.527.0012	Free EVO 50BT	122	24V	1	500	800	2000-21527	44/11,63	50/13,21	124x58x121/49x23x48	140	308	1
8.525.1301	Next EVO 55BT	124	24V	1	550	800	2200-24210	55/14,52	65/17,17	142x72x123/56x28x48	120	264	1
8.525.1302	Next EVO 66BTA	124	24V	2	660	800	2640-28416	55/14,52	65/17,17	142x72x123/56x28x48	133	193	1
8.516.0406	Easy-R 50BT	126	24V	1	500	800	2250-24218	67/17,70	77/20,35	142x72x123/56x28x48	128	282	1
8.516.0407	Easy-R 55BT	126	24V	2	550	800	2475-26640	67/17,70	77/20,35	142x72x123/56x28x48	131	289	1
8.516.0415	Easy-R 66BT	126	24V	2	660	800	2970-31968	67/17,70	77/20,35	142x72x123/56x28x48	140	308	1
8.517.0102	Midi-R 66BT	128	24V	2	660	900	3762-40493	88/23,25	91/24,04	156x74x128/61x29x50	173	380	1
8.517.0105	Midi-R 75BT	128	24V	2	750	900	4275-46015	88/23,25	91/24,04	156x74x128/61x29x50	178	392	1
8.579.0001	Comfort XXS 66	130	24V	2	660	855	3250-34982	75/19,81	80/21,13	153x82x140/60x32x55	175	390	1
8.579.0002	Comfort XXS 66	130	24V	2	660	855	3250-34982	75/19,81	80/21,13	153x82x140/60x32x55	251	560	1
8.579.0011	Comfort XXS 66	130	24V	2	660	855	3250-34982	75/19,81	80/21,13	153x82x140/60x32x55	177	394	1
8.574.4001	Comfort XS-R 75 Essential	132	24V	2	750	900	3750-40364	110/29,06	130/34,34	152x97x154/59x39x61	226	497	1
8.574.4003	Comfort XS-R 85 Essential	132	24V	2	750	900	3750-40364	110/29,06	130/34,34	152x97x154/59x39x61	226	497	1
8.574.4101	Comfort XS-R 75 UP	134	24V	2	750	900	3750-40364	110/29,06	130/34,34	152x97x154/59x39x61	236	519	1
8.574.4103	Comfort XS-R 85 UP	134	24V	2	820	1000	6200-66000	110/29,06	130/34,34	152x97x154/59x39x61	237	521	1
8.575.0010	Comfort S-R 90	136	24V	2	900	1000	5740-61784	140/36,99	150/39,63	200x118x171/79x46x67	345	760	1
8.578.0004	Comfort M102	138	36V	2	1020	1250	7140-76854	200/52,84	210/55,48	200x118x171/79x46x67	381	838	1
8.572.0002	Comfort L122	140	36V	3	1220	1450	8540-91923	280/73,97	315/83,22	230x135x190/91x53x74	670	1.474	1

# **Sprinter**







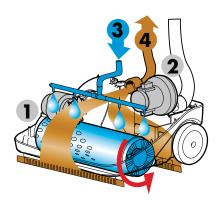


• Suitable to work in high congested areas like small shops, offices, kitchens, schools, hospitals, bars, gyms, restaurants • Three controls for brush drive, washing and drying operations • Double floor squeegee for both forward and reverse drying • Sound pressure 68 dB (A) • Min. working height required 200 mm • Structure built with durable materials • Suitable load on the brush for an optimal cleaning efficiency • Detachable detergent/recovery tank • Cable holder • 7mt electric cable • Non-marking wheels.



	Sprinter
code	8.501.0501
power supply	230 V - 50 Hz
scrubbing / squeegee width	290 / 320 mm
max working capacity	1015 m <sup>2</sup> /h
detergent tank capacity	2.8 l / 0.74 gal
recovery tank capacity	5.6 l / 1.48 gal
traction	mechanical
RPM / pressure on the brushes	1000 / 7 kg / 15,43 lbs
brush motor power	200 W
noise level dB (A)	68
depression / vacuum motor	1428 mmH <sub>2</sub> O / 800 W
dimensions / weight	37 x 37 x 113 cm / 13 kg





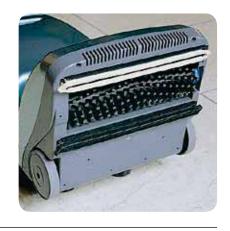
- 1) Brush motor
- 2) Vacuum motor
- 3) Detergent solution flow
- 4) Dirty liquid flow

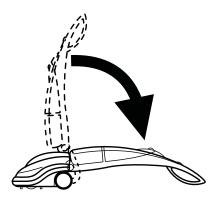
Double squeegee for both forward and reverse washing and drying.

PPL brush suitable for most common floors (brush for carpet and moquette cleaning available).

ABS shock-proof covers. Non-

marking rubber wheels.



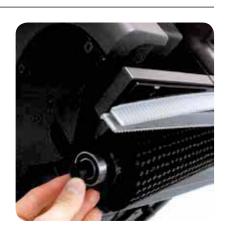


Minimun working height 200 mm, allowing perfect cleaning under furnitures, chairs, tables, beds, etc.

The tilting handle makes easy and stressless the daily use of the machine.

Large tank capacity avoiding frequent refilling of the unit

Cylindrical brush quick connection and release: the fitting and releasing of the brush does not require the use of tools. Ordinary cleaning and maintenance are simple and quick for anybody



# • 6.505.0009 Carpet cleaning kit • 4.512.0068 Extension electric cord 15 m with Schuko plug • 0.010.0014 64 x 100 ml concentrated detergent



# **Crystal Clean**

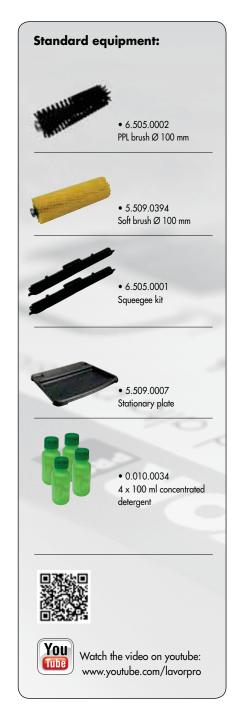






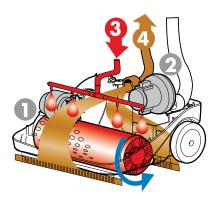


• Suitable to work in high congested areas like small shops, offices, kitchens, schools, hospitals, bars, gyms, restaurants • 90°C hot scrubbing • Three controls for brush drive, washing and drying operations • Double floor squeegee for both forward and reverse drying • Sound pressure 68 dB (A) • Min. working height required 200 mm • Structure built with durable materials • Suitable load on the brush for an optimal cleaning efficiency • Detachable detergent/recovery tank • Cable holder • 7.5 mt electric cable • Non-marking wheels.



	Crystal Clean
code	8.501.0508
power supply	230 V - 50 Hz
scrubbing / squeegee width	290 / 320 mm
max working capacity	1015 m²/h
detergent tank capacity	2.8 l / 0.74 gal
recovery tank capacity	5.6 l / 1.48 gal
traction	mechanical
RPM / pressure on the brushes	1000 / 7 kg / 15,43 lbs
brush motor power	200 W
noise level dB (A)	68
depression / vacuum motor	1428 mmH <sub>2</sub> O / 800 W
dimensions / weight	37 x 37 x 113 cm / 13 kg





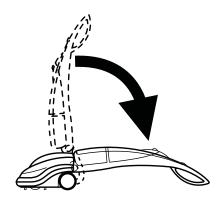
- 1) Brush motor
- 2) Vacuum motor
- 3) Hot water with detergent solution flow
- 4) Dirty liquid flow



Double squeegee for both forward and reverse washing and drying.

PPL brush suitable for most common floors and soft brush for carpet and moquette cleaning. Hot water cleaning for a faster and perfect removal of the most common organic dirt ( grease, mud, oil, etc.)



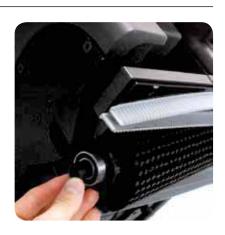


Minimun working height 200 mm, allowing perfect cleaning under furnitures, chairs, tables, beds, etc.

The tilting handle makes easy and stressless the daily use of the machine.

Large tank capacity avoiding frequent refilling of the unit

Cylindrical brush quick connection and release: the fitting and releasing of the brush does not require the use of tools. Ordinary cleaning and maintenance are simple and quick for anybody



#### **Optional accessories:**





• 0.010.0014 64 x 100 ml concentrated detergent













• Suitable to work in high congested areas like small shops, offices, kitchens, schools, hospitals, bars, gyms, restaurants • Adjustable flow (automatic start-stop with solenoid valve) of the detergent solution depending on type of surface • Brush with quick release• Removable recovery tank • Available in battery version (36B) with integrated battery charger with data memory and for any type of batteries • Battery included • Squeegee lifting lever • Compact reclining handle with control switches • Easy access and simple service of the components.

#### **Standard equipment:**



• 5.511.1346 PPL brush Ø 360 mm - 15"



4.508.1040
Front squeegee blade
L.537 mm - Th. 2.5 mm
4.508.1041
Rear squeegee blade
L.590 mm - Th. 3 mm



• 0.108.0061 On-board Battery charger 12V 8A only for model code: 8.518.0003



0.107.0061
Maintenance free battery
12V MFP 50
65Ah C20/50Ah C-5
only for model code:
8.518.0003

• 0.108.0025 Power cable 1,5 mt. for battery charger only for model code: 8.518.0003





Watch the video on youtube: www.youtube.com/lavorpro

	Quick 36E	Quick 36B
code	8.518.0004	8.518.0003
power supply	220/240 V - 50/60 Hz	12 V
scrubbing / squeegee width	360 / 460 mm	360 / 460 mm
max working capacity	1260 m²/h	1260 m²/h
detergent tank capacity	11 l / 2.91 gal	11 l / 2.91 gal
recovery tank capacity	12-13   / 3.2 gal	12-13   / 3.2 gal
traction	mechanical	mechanical
RPM / pressure on the brushes	130/18 kg /40 lbs	130/18 kg /40 lbs
brush motor power	370 W	250 W
detergent solution system	solenoid valve	solenoid valve
depression / vacuum motor	850 mmH <sub>2</sub> O/400 W	650 mmH <sub>2</sub> O/180 W
dimensions / weight	120x43x97 cm / 38kg	120x43x97 cm / 38kg





The unit can be supplied mains ( 15 m cable available ) or battery powered. Reclining handle: fit on any operator's height and allowing the perfect cleaning also on 90° corners. Shock-absorbing covers , simple cleaning of the recovery tank, non marking wheels .

Easy access to mechanical parts ( easy maintenance of each component ), removable recovery tank without tools.





User friendly analogic control panel. Control lever for brush operation and detergent water outflow.

General ON/OFF switch, brush and vacuum motor switch, solenoid valve operation switch.

Parabolic squeegee, easy rubber blades replacement. The floating brush plate and squeegee grant the right cleaning pressure on any type of floor.



#### **Optional accessories:**



• 0.107.0065 Battery AGM 12V 60Ah C5 - 75A C20



• 0.108.0051 Booster battery charger



4.508.1058 Polyurethane front blade L.537 TH. 2,5
4.508.1059 Polyurethane rear blade L.590 TH. 3



• 5.511.1413 Tynex brush Ø 360 mm-14" • 5.511.1411 PPL 0,03 brush Ø 360 mm-14"





• 5.511.1129 EWU pad driver Ø 360mm-14"



• 6.508.0143

Abrasive pad Ø 381 mm-15" - beige (5 pcs.)

• 6.508.0144

Abrasive pad Ø 381 mm-15" - green (5 pcs.)

• 6.508.0141

Abrasive pad Ø 381 mm-15" - black (5 pcs.)



• 4.512.0068
Extension electric cord 15 m
with Schuko plug











of the solution water tank fill level • Easy access to the recovery tank





• Suitable to work in high congested areas like wellness centres and medical environments in general, gyms, retail outlets, car shops, sales points and health care • Solution water filter and solenoid valve (battery model only) • User friendly control panel • Hour meter (optional) • Chemical dosing system on request • Recovery water tank with visual inspection • Reclining handle with control lever (battery model only) • Low noise operation thanks to the protected positioning of vacuum motor • Recovery tank drain hose with adjustable flow system • Indicator

Non-marking wheels.

#### Standard equipment:



• 5.511.1688 PPL brush Ø 430 mm - 17"



• 4.508.X468
Front squeegee blade L.830
mm Shore 40 Th. 2.5 mm
• 4.508.X467
Rear squeegee blade L.870
mm Shore 40 Th. 3 mm



• 0.108.0042 On-board Battery charger CBHD1 24V 10A only for model code: 8.524.1002 8.524.0002



• 2 x 0.107.0061 Maintenance free battery 12 MFP 50 - 12V 50Ah only for model code: 8.524.0002





Watch the video on youtube: www.youtube.com/lavorpro

	Speed 45E	Speed 45B	Speed 45B
code	8.524.3302	8.524.1002	8.524.0002
power supply	230 V - 50 Hz	24V (battery charger included)	24V (batteries and charger included)
scrubbing / squeegee width	450 / 800 mm	450 / 800 mm	450 / 800 mm
max working capacity	1575 m²/h	1575 m²/h	1 <i>5</i> 75 m²/h
detergent tank capacity	25   / 6.61 gal	25   / 6.61 gal	25   / 6.61 gal
recovery tank capacity	25-28   / 6.61 gal	25-28   / 6.61 gal	25-28   / 6.61 gal
traction	mechanical	mechanical	mechanical
RPM / pressure on the brushes	140/25 kg /39,68 lbs	150/18 kg /39,68 lbs	150/18 kg /39,68 lbs
brush motor power	550 W	450 W	450 W
detergent solution system	mechanical	solenoid valve	solenoid valve
depression / vacuum motor	1100 mmH <sub>2</sub> O/400 W	1100 mmH <sub>2</sub> O/370 W	1100 mmH <sub>2</sub> O/370 W
dimensions / weight	106x50x88 cm / 65 kg	106x50x88 cm / 87kg	106x50x88 cm / 87kg





User friendly analogic control panel. Control lever for brush operation and detergent water outflow. ON/OFF and battery cutout key switch, brush and vacuum motor switch, detergent dosing knob (optional), Thermal circuit breaker to protect vacuum and brush motor, battery level indicator, hour meter (optional).

Automatic detergent dosing system on request (code 5.511.1687). Indicator of clean water tank level. Detergent solution regulation. Recovery tank drain hose with adjustable flow system.





Easy access to recovery water tank with visual inspection. Extremely silent (62 dB) thanks to the particular housing of the vacuum motor and the use of soundproofing material.

Thanks to the special squeegee support it is easily possible the tilting of the machine to carry out the drying of the floor without scrubbing. The oversize wheels facilitate maneuverability and effortless use.



#### **Optional accessories:**



• 0.107.0065 Batteria AGM 12V 60Ah C5 - 75A C20



4.508.1178 Polyurethane front blade L.830 TH. 3
4.508.1177 Polyurethane rear blade L.870 TH. 4



• 5.511.1713 Tynex brush Ø 430 mm-17" • 5.511.1711 PPL 0,03 brush Ø 430 mm-17" • 5.511.1712 PES brush Ø 430 mm - 17"



• 5.511.1095 EWU pad driver Ø 430 mm-17"



• 6.508.0032 Abrasive pad Ø 430 mm-17" - beige (5 pcs.)

• 6.508.0039 Abrasive pad Ø 430 mm-17" - green (5 pcs.)

• 6.508.0046 Abrasive pad Ø 430 mm-17" - black (5 pcs.)



• 4.512.0068 Extension electric cord 15 m with Schuko plug

• 5.511.1687 Automatic detergent dosing system on request.



• Very compact scrubbing machines suitable to work for the maintenance cleaning of limited-size areas (up to 1.500 m²) • Especially suitable for cleaning: car shops, sales points, gym, health care • Control panel with operator presence safety system • Low level battery indicator: brush/vacuum and traction progressive cut off • Solution water filter and solenoid valve (battery model only) • Easy access to the battery compartment • Quick drain and easily inspectable recovery tank • Non-marking wheels • Roto-molded polyethylene tanks, shock and acid resistant • The lower tank also serves as battery compartment • Low noise operation thanks to the protected positioning of vacuum motor.

#### Standard equipment:



• 5.511.1097 PPL brush Ø 483 mm - 19"



4.508.X468
Front squeegee blade L.830
mm Shore 40 Th. 2.5 mm
 4.508.X467
Rear squeegee blade L.870
mm Shore 40 Th. 3 mm



0.108.0042
On-board Battery charger
CBHD1 24V 10A
only for model code:
8.527.0001 - 8.527.0002
8.527.0010 - 8.527.0012



• 0.107.0054 Maintenance free battery 12V 75Ah BT DC 5.5 only for model code: 8.527.0010 - 8.527.0012

#### Other available versions:

- 8.527.0010 Free Evo 50B with batteries and battery charger
- 8.527.0012 Free Evo 50BT with batteries and battery charger





Watch the video on youtube: www.youtube.com/lavorpro

	Free Evo 50E	Free Evo 50B	Free Evo 50B	Free Evo 50BT	Free Evo 50BT
code	8.527.0003	8.527.0004	8.527.0001	8.527.0011	8.527.0002
power supply	230V	24V	24V (battery charger included)	24V	24V (battery charger included)
scrubbing / squeegee width	500 / 800 mm	500 / 800 mm	500 / 800 mm	500 / 800 mm	500 / 800 mm
max working capacity	2000 m²/h	2000 m <sup>2</sup> /h	2000 m <sup>2</sup> /h	2000 m <sup>2</sup> /h	2000 m <sup>2</sup> /h
detergent tank capacity	44 l / 11,63 gal	44   / 11,63 gal	44   / 11,63 gal	44   / 11,63 gal	44   / 11,63 gal
recovery tank capacity	50-60 l / 13,21-16 gal	50-60 l/13,21-16 gal	50-60 l/13,21-16 gal	50-60 l/13,21-16 gal	50-60 l/13,21-16 gal
traction	mechanical	mechanical	mechanical	automatic	automatic
RPM / pressure on the brushes	150/20 kg /44,09 lbs	150/18 kg /44,09 lbs	150/18 kg /44,09 lbs	150/18 kg /39,68 lbs	150/18 kg /44,09 lbs
brush motor power	550W	550W	550W	550W	550W
detergent solution system	solenoid valve	solenoid valve	solenoid valve	solenoid valve	solenoid valve
depression / vacuum motor	1700 mmH <sub>2</sub> O/1000W	1280mmH2O/400W	1280 mmH <sub>2</sub> O/400W	1280 mmH <sub>2</sub> O/400W	1280 mmH <sub>2</sub> O/400W
dimensions / weight	116x46x98cm / 115 kg	116x51x98cm / 114 kg	116x51x98cm / 116 kg	116x51x98cm / 118 kg	116x51x98cm / 120 kg





Powerful gearmotor; metal brush plate with integrated plastic splash guard/bumper.

The outflow of the detergent solution is controlled by a solenoid valve. The actuation of the solenoid valve is operated by the control lever, avoiding the detergent solution outflow when the brush is stopped during the interruptions of work.





Renovated squeegee with new pressure adjusting system. The squeegee blades are easily replaceable without the use of tools. Quick and easy squeegee coupling through the two large knobs; the squeegee is released without any damage in the event of accidental impact.

Easy and intuitive controls. The outflow of the cleaning solution is easily controlled using the mechanical lever placed on the control panel. Inspectable mesh filter to trap any existing solid body in the cleaning solution.



#### **Optional accessories:**



• 2 x 0.107.0002 Tubular battery Pb-acid 12V 118Ah C5



• 2 x 0.107.0063 GEL Battery 12 MFP 105 12V 105Ah C5



- 4.508.1178 Polyurethane front blade L.830 TH. 3
- 4.508.1177 Polyurethane rear blade L.870 TH. 4



- 5.511.1098 Tynex brush Ø 483 mm-19" • 5.511.1128
- PPL 0,03 brush Ø 483 mm-19" • 5.511.1206 PES brush Ø 483 mm - 19"



• 5.511.1099 EWU pad driver Ø 483 mm-19"



- 6.508.0034
- Abrasive pad Ø 483 mm-19"
- beige (5 pcs.)
- 6.508.0041
- Abrasive pad Ø 483 mm-19"
- green (5 pcs.)
- 6.508.0048
- Abrasive pad Ø 483 mm-19"
- black (5 pcs.)



• 4.512.0068 Extension electric cord 15 m with Schuko plug



# **Next Evo**







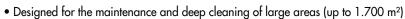












• Especially suitable for cleaning: car shops, sales points, gym, health care

• User friendly control panel • Automatic brush lifting (model 66BTA only) • Fully accessible recovery water tank with visual inspection • Automatic detergent measuring system (model 66BTA only) • Big size traction wheels • Handle with control lever

#### **Standard equipment:**



#### Next 55

• 5.511.1113 PPL brush Ø 533 mm - 21"



#### Next 66

• 2 x 5.511.1105 PPL brush Ø 330 mm - 13"

#### Next 55



• 4.508.X468 Front squeegee blade L.830 mm Shore 40 Th. 2.5 mm

• 4.508.X467

Rear squeegee blade L.870 mm Shore 40 Th. 3 mm

#### Next 66

• 4.508.1524

Front squeegee blade L.860 mm Shore 33 Th. 4 mm

• 4.508.1523

Rear squeegee blade L.900 mm Shore 40 Th. 4 mm



• 0.108.0059 On-board Battery charger CBHD1-XR 24V 12A

	Next Evo 55BT	Next Evo 66BTA
code	8.525.1301	8.525.1302
power supply	24V	24V (battery charger included)
scrubbing / squeegee width	550 / 800 mm	660 / 800 mm
max working capacity	2200 m <sup>2</sup> /h	2640 m²/h
detergent tank capacity	55   / 14.5 gal	55   / 14.5 gal
recovery tank capacity	55-65   / 14.52-17.17 gal	55-65   / 14.52-17.17 gal
traction	automatic	automatic
RPM / pressure on the brushes	150/33 kg /72.75 lbs	150/40 kg /88.18 lbs
brush motor power	600 W	750 W
detergent solution system	solenoid valve	solenoid valve
depression / vacuum motor	370 W	1100 mmH <sub>2</sub> O/370 W
dimensions / weight	128x71x106 cm / 104 kg	128x71x106 cm / 110 kg





User friendly analogic control panel. Control lever for brush operation and detergent water outflow (55BT, 66BTA). ON/OFF and battery cutout key switch, brush and vacuum motor switch, detergent regulation device (66BTA). Thermal circuit breaker to protect vacuum motor and brush motor, battery charge level indicator.

Hour meter, clean water tank level indicator. Detergent regulation device. Recovery tank drain hose with adjustable flow system. Automatic brush lifting.





Automatic detergent dosing system (only model 66BTA). Fully accessible recovery water tank with visual inspection. Easy access to the recovery tank. Easy access and simple service of the components without use of tools.

Battery trolley for a quick and easy battery change. Big size wheels for better maneuverability and effortless use.



#### **Optional accessories:**



• 2 x 0.107.0002 Tubular battery Pb-acid 12V 118Ah C5



• 2 x 0.107.0063 GEL Battery 12 MFP 105 12V 105Ah C5



• 0.108.0001 Battery Charger 24V 12A 220-240/50-60



- 4.508.1178 Polyurethane front blade L.830 TH. 3
- 4.508.1177 Polyurethane rear blade L.870 TH. 4
- 4.508.1526 Polyurethane front blade L.860 TH. 4
- 4.508.1525 Polyurethane rear blade L.900 TH. 4



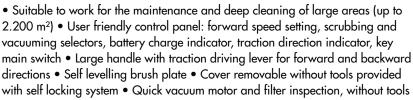
- 5.511.1114 Tynex brush Ø 533 mm-21" • 5.511.1106
- 5.511.1106 Tynex brush Ø 330 mm-13" 2x
- 5.511.1794 PPL brush Ø 533 mm-21" • 5.511.1255
- PPL 0,03 brush Ø 330 mm-13" 2x
- 5.511.1207 PES brush Ø 533 mm-21" • 5.511.1202
- 5.511.1202 PES brush Ø 330 mm-13" 2x



- 5.511.1115 EWU pad driver Ø 533mm-21" • 5.511.1107
- EWU pad driver Ø 330mm-13"



- 6.508.0035 Ø 533 mm-21"- beige
- 6.508.0042 Ø 533 mm-21"- green
- 6.508.0049 Ø 533 mm-21" black
- 6.508.0030 Ø 340 mm-13"- beige
- 6.508.0037 Ø 340 mm-13"- green
- 6.508.0044 Ø 340 mm-13"- black



- Detergent solution tank with large opening protected by quick locking cap
- Parking brake directly on the wheel
   Non-marking wheels
   Easy squeegee regulation without tools
   Movable shock-proof squeegee
   Hour meter and solenoid valve.





• 5.511.1097 PPL brush Ø 483 mm - 19"



Easy-R 55BT

• 2 x 5.511.1101 PPL brush Ø 275 mm - 10"



Easy-R 66BT

• 2 x 5.511.1105 PPL brush Ø 330 mm - 13"



• 4.508.X468 Front squeegee blade L.830 mm Shore 40 Th. 2.5 mm

• 4.508.X467 Rear squeegee blade L.870 mm Shore 40 Th. 3 mm





Watch the video on youtube: www.youtube.com/lavorpro

	Easy-R 50BT	Easy-R 55BT	Easy-R 66BT
code	8.516.0406	8.516.0407	8.516.0415
power supply	24V	24V	24V
scrubbing / squeegee width	500 / 800 mm	550 / 800 mm	660 / 800 mm
max working capacity	2250 m²/h	2475 m²/h	2970 m²/h
detergent tank capacity	67   / 17.70 gal	67 l / 17.70 gal	67   / 17.70 gal
recovery tank capacity	75-95   / 20.35-25 gal	75-95   / 20.35-25 gal	75-95   / 20.35-25 gal
traction	automatic	automatic	automatic
RPM / pressure on the brushes	150/35 kg /77.16 lbs	150/45 kg /99.20 lbs	150/24 kg /52.91 lbs
brush motor power	600 W	600 W	600 W
detergent solution system	solenoid valve	solenoid valve	solenoid valve
depression / vacuum motor	1280 mmH <sub>2</sub> O / 450W	1280 mmH <sub>2</sub> O / 450W	$1280 \text{ mmH}_2\text{O} / 450\text{W}$
dimensions / weight	135x56x102 cm / 97 kg	128x71x106 cm / 100 kg	128x71x106 cm / 109 kg

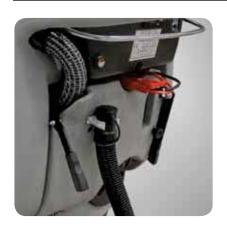




User friendly control panel. Speed adjustment selectors. General ON/OFF and key switch, brush and vacuum motor switch. Thermal circuit breaker to protect vacuum motor and brush motor, battery level control, hour meter.

Easy access to battery and vacuum motor compartment, without using tools. Large tank capacity, at the top in the category (67 l). 2 x 12V -118 Ah C5 batteries to grant long work autonomy, up to 3 hours.





Control lever for brush operation and detergent water outflow. Recovery tank drain hose. Quick fitting battery charger plug.

Heavy duty 15 mm steel monobloc brush plate. Great pressure on the floor for a deep cleaning even on the toughest dirt. Self levelling system. Solenoid valve to stop the detergent water outflow during the work interruptions.



#### **Optional accessories:**



• 2 x 0.107.0002 Tubular battery Pb-acid 12V 118Ah C5



• 2 x 0.107.0063 GEL Battery 12 MFP 105 12V 105Ah C5



• 0.108.0001 Battery Charger 24V 12A 220-240/50-60

• 5.511.1494 On-board Battery charger kit - 24V - 12A



- 4.508.1178 Polyurethane front blade L.830 TH. 3
- 4.508.1177 Polyurethane rear blade L.870 TH. 4



- 5.511.1098 Tynex brush Ø 483 mm-19"
- 5.511.1102
- Tynex brush Ø 275 mm-10"
- 5.511.1106 Tynex brush Ø 330 mm-13"
- 5.511.1128
- PPL 0,03 brush Ø 483 mm-19" • 5.511.1254
- PPL 0,03 brush Ø 275 mm-10"
- 5.511.1255 PPL 0,03 brush Ø 330 mm-13"
- 5.511.1206
- PES brush Ø 483 mm 19"
- 5.511.1201
- PES brush Ø 275 mm-10"
- 5.511.1202 PES brush Ø 330 mm-13"



- 5.511.1099
- EWU pad driver Ø 483mm-19"
- 5.511.1103
- EWU pad driver Ø 275mm-10"
- 5.511.1107
- EWU pad driver Ø 330mm-13"



(5 pcs package)

- 6.508.0034 Ø 483 mm-19"- beige
- 6.508.0041 Ø 483 mm-19"- green
- 6.508.0048 Ø 483 mm-19"- black
- 6.508.0095 Ø 280 mm-11"- beige
- 6.508.0096 Ø 280 mm-11"- green
- 6.508.0097 Ø 280 mm-11"- black
- 6.508.0030 Ø 340 mm-13"- beige
- 6.508.0037 Ø 340 mm-13"- green
- 6.508.0044 Ø 340 mm-13"- black





#### **Standard equipment:**

#### Midi-R 66BT



• 2 x 5.511.1105 PPL brush Ø 330 mm - 13"

#### Midi-R 75BT



• 2 x 5.511.1168 PPL brush Ø 360 mm - 14"



• 4.508.0646 Front squeegee blade L.925 mm Shore 40 Th. 3 mm

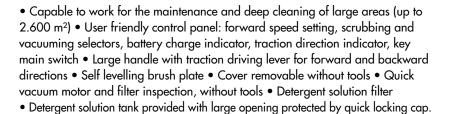
4.508.0605 Rear squeegee blade L.1015 mm Shore 30 Th. 4 mm











	Midi-R 66BT	Midi-R 75BT
code	8.517.0102	8.517.0105
power supply	24V	24V
scrubbing / squeegee width	660 / 900 mm	750 / 900 mm
max working capacity	3726 m²/h	4275 m²/h
detergent tank capacity	88 l / 23.25 gal	88   / 23.25 gal
recovery tank capacity	91-95   / 24.04-25 gal	91-95   / 24.04-25 gal
traction type / power	automatic / 300 W	automatic / 300 W
RPM - pressure on the brushes	150 - 43,5 kg /95.9 lbs	150 - 48,5 kg /107.48 lbs
brush motor power	1000 W	1000 W
detergent solution system	solenoid valve	solenoid valve
depression / vacuum motor	$1733~{\rm mmH_{2}O}\ /\ 550~{\rm W}$	1733 mmH <sub>2</sub> O / 550 W
dimensions / weight	133x73x117 cm / 150 kg	133x73x117 cm / 153 kg





Easy access to battery and vacuum motor compartment, without using tools. Large capacity shock and acid proof polyethilene tanks (88 l) avoid frequent refilling and idle time. 4 x 6V -180 Ah C5 batteries granting continuous working time up to 4-5 hours.

Adjustable speed ensures high precision in cleaning congested areas with obstacles. Intuitive controls reduce operator's training time. Safety thermal breakers prevent motor problems in case of overheating or operator's misuse.





Heavy duty V-shaped squeegee ensures perfect drying of every type of floor, even with large joints. Non-marking wheels avoid marks after the drying. Completely adjustable to fit any surface.

Strong mechanical control levers for heavy duty use. Large size drain hose for a fast emptying and a better cleaning of the recovery tank. Quick fitting battery charger plug.



#### **Optional accessories:**



• 4 x 0.107.0004 Tubular battery Pb-acid 6V 180Ah C5



• 4 x 0.107.0072 GEL Battery 6 MFP 180 6V 180Ah C5



• 0.108.0002 Battery Charger 24V 25A 220-240/50-60

• 5.511.1495 On-board Battery charger kit - 24V - 25A



4.508.0901 Polyurethane front blade L.925 TH.3 Sh.40
4.508.0900 Polyurethane rear blade L.1015 TH.4 Sh.40



5.511.1106
Tynex brush Ø 330 mm-13"
5.511.1246
Tynex brush Ø 360 mm-14"

• 5.511.1255 PPL 0,03 brush Ø 330 mm-13″ • 5.511.1169 PPL 0,03 brush Ø 360 mm-14″

• 5.511.1202 PES brush Ø 330 mm-13" • 5.511.1203 PES brush Ø 360 mm - 14"



• 5.511.1107 EWU pad driver Ø 330 mm-13"

• 5.511.1129 EWU pad driver Ø 360 mm-14"



(5 pcs package)

• 6.508.0030 - Ø 340 mm-13"- beige • 6.508.0037 - Ø 340 mm-13"- green

• 6.508.0044 - Ø 340 mm-13"- black

• 6.508.0143 - Ø 380 mm-15"- beige • 6.508.0144 - Ø 380 mm-15"- green

• 6.508.0141 - Ø 380 mm-15"- black



# **Comfort XXS**







STOP









Only code 8.579.0002

#### **Standard equipment:**



• 2 x 5.511.1789 PPL Brush Ø 330 mm - 13"



• 4.508.1619 Front squeegee blade L.960 mm Th. 2,5 mm

• 4.508.1618 Rear squeegee blade L.1000 mm Th. 3 mm



• 0.108.0054 On-board Battery charger CBH2D 24V 20A (only for models code: 8.579.0002 - 8.579.0011)



• 2 x 0.107.0063 Gel battery 12V 105 A/C 5/120A C20 (only for model code: 8.579.0002)





Watch the video on youtube: www.youtube.com/lavorpro

Designed for the maintenance and deep cleaning of large areas (up to 3200 m<sup>2</sup>.) with a very important reduction of cleaning cost. Very compact size and great maneuverability like walk behind models: suited for maintenance cleaning. • 32 kg. of constant pressure on the brushes. • Double counter rotating brush (66 cm of scrubbing width) obtaining better stability and constant pressure.

- Great working autonomy thanks to the possibility to use 4 batteries 6 V 240 Ah and to rear wheeldrive. Large load tank capacity (real load of 75 l.), resulting in reduced numbers of stops and maximum use of battery for effective operation of the machine. Ergonomic steering wheel of new design with user friendly controls and digital display. Easy access to electrical components.
- Inspection cover for fast and easy cleaning and sanification of dirt water tank. Automatic device that stops brushes and detergent water outflow when the machine is stationary. Self-levelling brush plate. Automatic detergent measuring system.

	Comfort XXS 66 BT	Comfort XXS 66 BT	Comfort XXS 66 BT
code	8.579.0001	8.579.0002	8.579.0011
power supply	24V	24V (batteries and battery charger included)	24V (battery charger included)
scrubbing / squeegee width	660 / 855 mm	660 / 855 mm	660 / 855 mm
max working capacity	3250 m²/h	3250 m²/h	3250 m²/h
detergent tank capacity	75 l / 19.81 gal	75 l / 19.81 gal	75   / 19.81 gal
recovery tank capacity	75-80   / 19.81-21.13 gal	75-80   / 19.81-21.13 gal	75-80 l / 19.81-21.13 gal
traction	rear wheel-drive / 400 W	rear wheel-drive / 400 W	rear wheel-drive / 400 W
RPM / pressure on the brushes	170/32 kg / 70.54 lbs	170/32 kg / 70.54 lbs	170/32 kg / 70.54 lbs
brush motor power	2 X 400 W	2 X 400 W	2 X 400 W
max gradient empty/full tank	13% / 10%	13% / 10%	13% / 10%
depression / vacuum motor	1300 mmH <sub>2</sub> O/400 W	1300 mmH <sub>2</sub> O/400 W	1300 mmH <sub>2</sub> O/400 W
dimensions / weight	123 x 63 h 121 cm / 160 kg	123 x 63 h 121 cm / 234 kg	123 x 63 h 121 cm /162 kg





Great working autonomy thanks to the possibility to use 4 batteries 6 V 240 Ah granting continuous working up. Possibility to use also 2 batteries 12V. Less battery consumption thanks to rear wheeldrive. Large load tanks made of shock and acid proof polyethylene (real load of 75 l.), avoiding frequent stop for refilling.

User friendly control panel. Steering wheel with digital controls and display. Squeegee and brush plate mechanical and user friendly lifting lever: min. maintenance cost training time for the users. Scrubbing unit with double brush with brush plate made of steel for a great pressure (32 Kg.) on the floor resulting in an easy and deep cleaning of any kind of dirt.





Rear wheel-drive on 2 wheels allows the machine to get over remarkable slopes. Detergent solution is cleansed by an external completely accessible filter, that holds any impurities, thus protecting the solenoid valve. The easy access to all internal components of XXS make it possible to reduce maintenance cost.

The comfortable and ergonomic seat allows the operator to work effortless for a long time, improving productivity. Its very compact size make it perfect to work in small areas where walk behind models are usually used. The use of XXS makes working easier and quicker with a huge saving of time.



#### **Optional accessories:**



• 4 x 0.107.0004 Tubular battery Pb-acid 6V 180Ah C5



• 4 x 0.107.0072 Gel battery 6 MFP 180 6V 180Ah C5



• 2 x 0.107.0002 Tubular battery Pb-acid 12V 118 Ah C5



• 0.108.0002 Battery charger 24V 25A 220-240/50-60



 4.508.1594 Polyurethane front blade L.960 TH.3 Sh.40
 4.508.1596 Polyurethane rear blade L.1000 TH.4 Sh.40



• 2 x 5.511.1106 Tynex brush Ø 330 mm-13" • 2 x 5.511.1255 PPL 0,03 brush Ø 330 mm-13" • 2 x 5.511.1202 PES brush Ø 330 mm - 13"



• 2 x 5.511.1107 EWU pad driver Ø 330 mm-13"



• 2 x 6.508.0030 - Ø 340 mm - 13"- beige (5 pcs.)

• 2 x 6.508.0037 - Ø 340 mm - 13"- green (5 pcs.)

• 2 x 6.508.0044 - Ø 340 mm - 13"- black (5 pcs.)



• 6.505.0062 Flashing beacon



# NEW

# **Comfort XS-R** Essential









• Capable to work for the maintenance and deep cleaning of large areas (up to 3.700 m²) with a very important reduction of cost of cleaning • More than 50 kg of constant pressure on the brushes • Large load tank capacity, resulting in reduced number of stops and maximum use of battery charge for effective operation of the machine • Compact size (810 mm) • Stability even when fully loaded, front independent wheeldrive with tight steering radius • Recovery tank control window for cleaning and easy ordinary maintenance • Easy access to electrical components • Automatic device that stops brushes and detergent water outflow when the machine is stationary • Self-levelling brushes

#### **Standard equipment:**



#### Comfort XS-R 75

• 2 x 5.511.1168 PPL brush Ø 360 mm - 14"



#### Comfort XS-R 85

• 2 x 5.511.1688 PPL brush Ø 430 mm - 17"



• 4.508.0646 Front squeegee blade L.925 mm Shore 40 Th. 3 mm

• 4.508.0605 Rear squeegee blade L.1015 mm Shore 30 Th. 4 mm

#### Comfort XS-R 85

• 4.508.1190

Front squeegee blade L.1027 mm Shore 40 Th. 3 mm

• 4.508.1195

Rear squeegee blade L.1150 mm Shore 33 Th. 4 mm





Watch the video on youtube: www.youtube.com/lavorpro

	Comfort XS-R 75 Essential	Comfort XS-R 85 Essential
code	8.574.4001	8.574.4003
power supply	24V	24V
scrubbing / squeegee width	750 / 900 mm	850 / 900 mm
max working capacity	3750 m²/h	4100 m <sup>2</sup> /h
detergent tank capacity	110 l / 29.05 gal	110 l / 29.05 gal
recovery tank capacity	130-155   / 34.35-40.95 gal	130-155   / 34.35-40.95 gal
traction type / power	front motorwheel / 600 W	front motorwheel / 600 W
RPM / pressure on the brushes	170/50 kg /110.23 lbs	170/50 kg /110.23 lbs
brush motor power	2 x 400 W	2 x 400 W
max gradient empty/full tank	13% / 10%	13% / 10%
depression / vacuum motor	1300 mmH <sub>2</sub> O/400W	1300 mmH <sub>2</sub> O/400W
dimensions / weight	146x81x138 cm / 220 kg	146x81x138 cm / 220 kg





The detergent water tank serves as battery compartment, allowing the housing of great capacity batteries granting continuous working time up. Large capacity shock and acid proof polyethylene tank (1101) improves productivity avoiding frequent refilling and idle time.

Simple and intuitive controls reduce operator's training time. Easy mechanical brush plate and squeegee lifting system, for low maintenance costs. The enbloc brush plate apply a very high pressure (50 kg) to the floor, strongly and deeply removing any kind of dirt.





New control panel with digital controls and display.

Digital display: with hour meter, battery charge level indicator, empty water tank level indicator and forward/reverse traction indicator.

Speed control adjustment, horn, suction motor switch with delayed switch-off, brush plate lifting/lowering selector switch,

brush motor switch.
The ergonomic and comfortable shape of the machine allows the operator to work effortless for a long time, improving productivity.



#### **Optional accessories:**



• 4 x 0.107.0004 Tubular battery Pb-acid 6V 180Ah C5 + 2 x 5.511.0561 connection cable batteries



• 4 x 0.107.0072 GEL Battery 6 MFP 180 6V 180Ah C5



• 0.108.0002 Battery Charger 24V 25A 220-240/50-60



• 5.511.1641 On-board Battery charger kit - 24V - 20A



- 4.508.0901 Polyurethane front blade L.925 TH.3 Sh.40
- 4.508.0900 Polyurethane rear blade L.1015 TH.4 Sh.40
- 4.508.1251 Polyurethane front blade L.1027 TH.3
   4.508.1252 Polyurethane
- 4.508.1252 Polyurethane rear blade L.1150 TH.4



- 5.511.1246
- Tynex brush Ø 360 mm-14"
   5.511.1169
- PPL 0,03 brush Ø 360 mm-14"
- 5.511.1203 PES brush Ø 360 mm - 14"
- 5.511.1713 Tynex brush Ø 430 mm-17"
- 5.511.1711
- PPL 0,03 brush Ø 430 mm-17"
- 5.511.1712 PES brush Ø 430 mm - 17"



- 5.511.1592 EWU pad driver Ø 380 mm-15"
- 5.511.1095 EWU pad driver Ø 406 mm-17"





- 15"- green (5 pcs.) • 6.508.0141 - Ø 380 mm - 15"- black (5 pcs.)
- 6.508.0032 Ø 406 mm -17"- beige (5 pcs.)
- 6.508.0039 Ø 406 mm 17"- green (5 pcs.)
- 6.508.0046 Ø 406 mm -17"- black (5 pcs.)















• Capable to work for the maintenance and deep cleaning of large areas (up to 4.000 m²) with a considerable reduction of cleaning costs • More than 50 kg of constant pressure on the brushes • Large load tank capacity, resulting in reduced number of stops and maximum use of battery charge for effective operation of the machine • Compact size (810 mm) • Stability even when fully loaded, front independent wheeldrive with tight steering radius • Recovery tank control window for cleaning and easy ordinary maintenance • Automatic brush plate lifting system • Automatic squeegee lifting system • Automatic squeegee lifting while reverse going • Automatic device that stops brushes and detergent water outflow when the machine is stationary • Antifoam device • Self-levelling brushes • Integrated on-board battery charger.

#### **Standard equipment:**



#### Comfort XS 75 Up

• 2 x 5.511.1168 PPL brush Ø 360 mm - 14"



#### Comfort XS 85 Up

• 2 x 5.511.1688 PPL brush Ø 430 mm - 17"



#### Comfort XS 75 Up

Front squeegee blade L.925 mm Shore 40 Th. 3 mm

4.508.0605

Rear squeegee blade L.1015 mm Shore 30 Th. 4 mm

#### Comfort XS 85 Up

• 4.508.1196

Front squeegee blade L.1027 mm Shore 40 Th. 3 mm

• 4.508.1195 Rear squeegee blade L.1150 mm Shore 33 Th. 4 mm



• 0.108.0054 On-board Battery charger **CBH2D 24V 20A** 





Watch the video on youtube: www.youtube.com/lavorpro

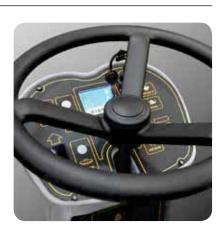
	Comfort XS-R 75 Up	Comfort XS-R 85 Up
code	8.574.4101	8.574.4103
power supply	24V	24V
scrubbing / squeegee width	750 / 900 mm	850 / 900 mm
max working capacity	3750 m²/h	4100 m²/h
detergent tank capacity	110 l / 29.05 gal	110 l / 29.05 gal
recovery tank capacity	130-155   / 34.35-40.95 gal	130-155   / 34.35-40.95 gal
traction type / power	front motorwheel $/$ 600 W	front motorwheel / 600 W
RPM / pressure on the brushes	170/50 kg /110.23 lbs	170/50 kg /110.23 lbs
brush motor power	2 x 400 W	2 x 400 W
max gradient empty/full tank	13% / 10%	13% / 10%
depression / vacuum motor	1300 mmH <sub>2</sub> O/400W	1300 mmH <sub>2</sub> O/400W
dimensions / weight	146x81x138 cm / 220 kg	146x81x138 cm / 220 kg





The easy access to the recovery tank allows fast cleaning and sanification of the tank; the tilting tank together with a large size drain hose allow the complete emptying of the tank and the removal of any type of solid dirt. The antifoam device protects suction motor, as well as the electronic floating switch that stops suction when the tank is full.

Comfort XS-R Up is equipped with actuators for the automatic lifting of the brush plate and squeegee. New control panel with digital controls and display. Digital display: with hour meter, battery charge level indicator, empty water tank level indicator and forward/reverse traction indicator. Speed control adjustment, horn, suction motor





switch with delayed switch-off, brush plate lifting/lowering selector switch, brush motor switch. All motors are protected by thermal breakers. The detergent water tank serves as battery compartment, allowing the housing of great capacity batteries. Battery charger and suction motor are placed the recovery tank; the housing of the

vacuum motor allows to drastically reduce the operating noise. The ergonomic and comfortable shape of the machine allows the operator to work effortless for a long time, improving productivity. Thanks to the compact dimensions the machine can work with agility even in narrow spaces.



#### **Optional accessories:**



• 4 x 0.107.0004 Tubular battery Pb-acid 6V 180Ah C5



• 4 x 0.107.0072 GEL Battery 6 MFP 180 6V 180Ah C5



- 4.508.0901 Polyurethane front blade L.925 TH.3 Sh.40
  4.508.0900 Polyurethane rear blade L.1015 TH.4 Sh.40
- 4.508.1251 Polyurethane front blade L.1027 TH.3
  4.508.1252 Polyurethane rear blade L.1150 TH.4



- 5.511.1246 Tynex brush Ø 360 mm-14" • 5.511.1169 PPL 0,03 brush Ø 360 mm-14"
- 5.511.1203 PES brush Ø 360 mm - 14"
- 5.511.1713 Tynex brush Ø 430 mm-17" • 5.511.1711 PPL 0,03 brush Ø 430 mm-17" • 5.511.1712

PES brush Ø 430 mm - 17"



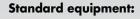
- 5.511.1592 EWU pad driver Ø 380 mm-15"
- 5.511.1095 EWU pad driver Ø 406 mm-17"



- 6.508.0143 Ø 380 mm -
- 15"- beige (5 pcs.)
- 6.508.0144 Ø 380 mm -
- 15"- green (5 pcs.)
- 6.508.0141 Ø 380 mm -15"- black (5 pcs.)
- 6.508.0032 Ø 406 mm 17"- beige (5 pcs.)
- 6.508.0039 Ø 406 mm
- 17"- green (5 pcs.)
- 6.508.0046 Ø 406 mm 17"- black (5 pcs.)









• 2 x 5.511.1845 PPL brush Ø 457 mm - 18"



• 4.508.1196 Front squeegee blade L.1027 mm Shore 40 Th. 3 mm

• 4.508.1195 Rear squeegee blade L.1150 mm Shore 33 Th. 4 mm









- Suitable for maintenance and deep cleaning of medium and large areas (up to 4.500 m²) with a considerable reduction of cleaning costs More than 60/80 kg of constant pressure on the brushes Large load tank capacity, resulting in reduced number of stops and maximum use of battery charge for effective operation of the machine Compact size Stability even when fully loaded Front independent wheel-drive with tight steering radius Easy access to electrical components
- Automatic brush plate lifting system Automatic squeegee lifting system
- Automatic squeegee lifting while reverse going Automatic device that stops brushes and detergent water outflow when the machine is stationary Antifoam device Self-levelling brushes High-performance batteries resulting in high-working efficiency.

	Comfort S-R 90	
code	8.575.0010	
power supply	24V	
scrubbing / squeegee width	900 / 1000 mm	
max working capacity	6200 m²/h	
detergent tank capacity	140 l / 36.99 gal	
recovery tank capacity	150-180   / 39.6-47 gal	
traction type / power	front motorwheel / 1000 W	
RPM / pressure on the brushes	150/50 kg /176 lbs	
brush motor power	1250 W	
max gradient empty/full tank	10% / 7%	
depression / vacuum motor	1734 mmH <sub>2</sub> O/550W	
dimensions / weight	175x93x149 cm / 220 kg	





Quick lock recovery tank cap allows for fast and esy cleaning and sanification of the tank; the tilting tank together with a large size drain hose allow the complete emptying of the tank and the removal of any type of solid dirt. The antifoam device protects suction motor, as well as the electronic floating switch that stops suction when the tank is full.

Comfortable steering wheel.
User friendly control panel,
provided with hour meter, speed
adjustment knob and detergent
solution low level warning light.
All motors are protected by
thermal breakers.

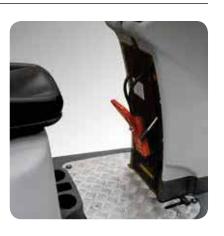




80 kg of continuous brush plate pressure with Self Leveling System to strongly and deeply removing any kind of dirt on any kind of floor. Strong oil-proof polyurethane wheels.

500 Ah C5 battery box allowing continuous working time up to 5 hours.

Built with strong components, Comfort S-R have been designed to resist even to extreme stresses; the frame is made of steel profiles with a thickness varying from 5 to 12 mm, protected with a high resistance corrosion-proof paint.



#### **Optional accessories:**



• 0.107.0008 Battery box Pb-acid 24V 500Ah C5



• 0.108.0003 Battery Charger 24/36V 50/60A - 220-240/50-60



- 4.508.1251 Polyurethane front blade L.1027 TH. 3
- 4.508.1252 Polyurethane rear blade L.1150 TH. 4



- 5.511.1848 Tynex brush Ø 457 mm-18"
- 5.511.1849 PPL 0,03 brush Ø 457 mm-18"
- 5.511.1847 PES brush Ø 457 mm-18"



• 5.511.1850 EWU pad driver Ø 457 mm-18"



- 6.508.0150 Ø 457 mm-18"beige (5 pcs.)
- 6.508.0151 Ø 457 mm-18"green (5 pcs.)
- 6.508.0142 Ø 457 mm-18"black (5 pcs.)



# **Comfort M**











• Suitable for maintenance and deep cleaning of medium and large areas (up to 6.000 m²) • More than 90/120 kg of constant pressure on the brushes • Large load tank capacity, resulting in reduced number of stops and maximum use of battery charge for effective operation of the machine • Stability even when fully loaded • Front independent wheel-drive with tight steering radius • Easy access to electrical components • Automatic brush plate lifting system • Automatic squeegee lifting system • Automatic squeegee lifting while reverse going • Automatic control system for brush rotation and detergent water outflow • Antifoam device • Self-levelling brush plate • Hour meter • High-performance batteries resulting in high-working efficiency.

#### Standard equipment:



• 2 x 5.511.1097 PPL brush Ø 483 mm - 19"



• 4.508.0217 Front squeegee blade L.1270 mm Shore 40 Th. 4 mm

• 4.508.0216 Rear squeegee blade L.1345 mm Shore 33 Th. 6 mm





Watch the video on youtube: www.youtube.com/lavorpro

	4.1.1110
	Comfort M 102
code	8.578.0004
power supply	36V
scrubbing / squeegee width	1020 / 1250 mm
max working capacity	7140 m²/h
detergent tank capacity	200 l / 52.84 gal
recovery tank capacity	210-240   / 55.5-63.4 gal
traction type / power	front motorwheel / 900 W
RPM / pressure on the brushes	150/120 kg /246 lbs
brush motor power	1500 W
max gradient empty/full tank	10% / 8%
depression / vacuum motor	1800 mmH <sub>2</sub> O / 600 W
dimensions / weight	190x96x145 cm / 375 kg



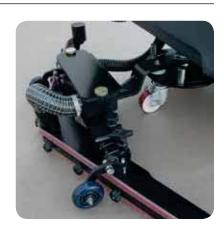


The unique anti foam device dramatically reduces the foam generation and prevents it from touching the suction motor, thus protecting its operation.

The electronic floating switch stops suction when the tank is full. Large tank opening for fast and easy cleaning and sanification.

The strong V-shaped floor squeegee made of steel profile is widely adjustable and allows to combine the operation of the rubber blades with the high suction power, to get a perfect drying result on every surface.

The special filter box retains solid debris and prevents the obstruction of the suction hose.

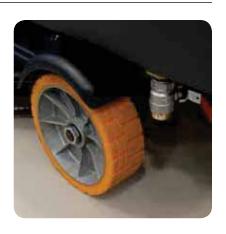




Comfort M scrubbers are easy to use thanks to the simple and user friendly controls. From the control panel the operator can adjust the maximum forward speed and the quantity of cleaning solution outflow, selecting the options most suitable to the dirt type. Job is simplified and made faster by the automatic lifting of the squeegee and of the brush plate.

Thanks to the optimal weight distribution and to the use of strong oil-proof polyurethane wheels the drive is perfect in all working conditions.

The emptying of the solution water tank is quick with a simple and easy accessible mechanical tap.



#### **Optional accessories:**



0.107.0009
 Battery box Pb-acid
 36V 360Ah C5
 0.107.0012
 Gel battery box
 36V 320Ah C5



• 0.108.0003 Battery Charger 24/36V 50/60A - 220-240/50-60



4.508.1167 Polyurethane front blade L.1270 TH. 4
4.508.0897 Polyurethane rear blade L.1345 TH. 6



• 5.511.1098 Tynex brush Ø 483 mm-19"

• 5.511.1128 PPL 0,03 brush Ø 483 mm-19"

• 5.511.1206 PES brush Ø 483 mm - 19"



• 5.511.1099 EWU pad driver Ø 483 mm-19"



• 6.508.0034 - Ø 483 mm -

19"- beige (5 pcs.)

• 6.508.0041 - Ø 483 mm -

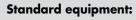
19"- green (5 pcs.)

• 6.508.0048 - Ø 483 mm - 19"- black (5 pcs.)



# **Comfort L**







• 3 x 5.511.1109 PPL brush Ø 406 mm - 16"



• 4.508.0219 Front squeegee blade L.1500 mm Shore 40 Th. 4 mm

4.508.0218 Rear squeegee blade L.1580 mm Shore 33 Th. 6 mm











- Suitable for maintenance and deep cleaning of medium and large areas (up to 7.000 m²) • More than 120-170 kg of constant pressure on the brushes
- 300 litres solution tank capacity allows exceptional autonomy and productivity
- Stability even when fully loaded Innovative traction system with three indipendent motor wheels controlled by electronic cards • Easy access to electrical components Automatic brush plate lifting system • Automatic squeegee lifting system • Automatic squeegee lifting while reverse going • Automatic control system for brush rotation and detergent water outflow • Antifoam device • Self-levelling brushes, hour meter, solenoid valve. High-performance batteries resulting in highworking efficiency

	Comfort L 122
code	8.572.0002
power supply	36V
scrubbing / squeegee width	1220 / 1450 mm
max working capacity	8540 m²/h
letergent tank capacity	280 l / 73.97 gal
ecovery tank capacity	315-340 l / 83.2-89 gal
raction type / power	3-wheels drive / 3 x 600 W
PM / pressure on the brushes	150/170 kg / 374 lbs
rush motor power	3 x 1000 W
nax gradient empty/full tank	15% / 14%
epression / vacuum motor	$1800 \text{ mmH}_2\text{O} / 600 \text{ W}$
dimensions / weight	222x112x169 cm / 585 kg





Designed to perform the hardest work and to resist even to extreme stresses with maximum comfort; the frame is made of steel profiles with a thickness varying from 5 to 12 mm, protected with a high resistance corrosion-proof paint.

The unique anti foam device dramatically reduces the foam generation and prevents it from touching the suction motor, thus protecting its operation. The electronic floating switch stops suction when the tank is full. Large tank opening for fast and easy cleaning and sanification.





The cleaning solution tank with an exceptional capacity of 300 liters and the high autonomy of the battery ensure a productivity at the top of the range. The wide rear opening allows for an easy and quick refilling of the cleaning solution tank.

The motorwheels, designed and built by Lavor, grant optimal performances and exceptional reliability (over 30.000 hours). The innovative three-wheel drive system ensures perfect traction in every operating condition. The high power of the three motorwheels allows the machine to get over remarkable slopes.



#### **Optional accessories:**



• 0.107.0010 Battery box Pb-acid 36V 525Ah C5



• 0.108.0003 Battery Charger 24/36V 50/60A - 220-240/50-60



• 4.508.1167 Polyurethane front blade L.1270 TH. 4 • 4.508.0897 Polyurethane rear blade L.1345 TH. 6



- 5.511.1110 Tynex brush Ø 406 mm-16"
- 5.511.1120 PPL 0,03 brush Ø 406 mm-16"
- 5.511.1204 PES brush Ø 406 mm - 16"



• 5.511.1111 EWU pad driver Ø 406 mm-16"



- 6.508.0031 Ø 406 mm -
- 16"- beige (5 pcs.)
- 6.508.0038 Ø 406 mm
- 16"- green (5 pcs.) 6.508.0045 Ø 406 mm -
- 16"- black (5 pcs.)



#### Is it better a petrol engine driven or a battery powered model?

The use of a petrol engine implies the presence of exhaust gasses and therefore the machine must be used only in outside areas or in areas where the operator is not exposed at such risk. The battery models can be used also inside. From the technical and qualitative point of view the sweepers do exactly the same cleaning task, but the petrol engine machine can work nonstop (it is only necessary to fill up the tank with petrol), while the electric models, once the battery is empty, need to be re-charged (an average of 8-10 hours of charge, if battery is completely worn-out)

# How long do battery charges last?

It is impossible to determine exactly how long a battery charge

Battery autonomy changes depending on type of surface, dirt quantity, brush type and way in which traction system is used (speed and slope).

Battery life is made up of number of charge cycles (also incomplete), if use conditions, charge and service are perfectly

Manufacturing technology diversifies numbers of cycles, service needed, use/charge conditions and performances.

#### Which kind of battery technology?

Batteries have different prices and so it is important to know their features in order to choose the best one as far as the operator's needs or habits are concerned.

Acid lead batteries (Pb-Acid), need

They divide into two families according to the necessity of recurrent acid solution refilling.

> refilling, because during the charge cycle a lot of gasses are generated (for this reason a specific and aired room is necessary for safe working) and the solution vaporizes: it is necessary to add distilled water before the submerged lead parts that are no more covered with water

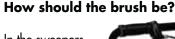
efficiency). VRLA batteries (Valve Regulated Lead Acid) are airtight, this means that gasses generated during the charge cycle are rearranged inside the battery: refilling is not necessary,

begin to oxidize

(compromised

it is possible to charge them in any room and they can be carried without risk.

Acid lead batteries divide themselves into categories depending on the thickness of plate they are built of: if the plate is plane, the resistance to discharge is lower and few charge cycles are necessary, if the plate is tubular (or armed, recognizable opening the battery cap and verifying that the plate is made up of a lot of cylinders side by side instead of a thin leaf sheet) there is a higher resistance to discharge and to charge cycles.



In the sweepers, there are two types of bushes: the first one rotates with a perpendicular axle to the floor (this is the one called "side brush"), it is useful to move dirt into the collecting area and to reach dirt near borders or under edges; the second one rotates with a parallel axle to the floor (this is the one called "main brush"); it rotates counterclockwise (opposite) to the forward direction of machine and collects dirt into the collection tank. The brushes differ in the shape (round flat the "side brush" and cylindrical the "main brush"), in the type of bristles (the way bristles are arranged on the brush body), in the body material (that accordingly to options, provides resistance still in humid environment or competitive construction) and in the bristle material /diameter/shape. Generally, the stiffer and rougher the bristles are, the better they collect the heaviest dirt adherent to the floor (typically wet leaves). The more flexible and thinner the bristles are, the better they collect light and thin dirt. To have a better scraping action, it is necessary to add steel bristle to the PPL ones. To collect very thin dirt, it is necessary to use only short round PPL bristles. As a consequence of motorization (petrol engine or electric one) and so of indoor or outdoor use, the walk behind models have stiffer or softer bristles, to adapt

in best way possible to the type of dirt typically found in the

working area.

VRLA batteries divide themselves depending on the condition (liquid or gel) of the acid solution (that enables energy exchange) and on the way it is kept inside the battery: if it is liquid and kept by a spongy and filamentous material, the battery is called AGM; if it is a gel solution inside a membrane, the battery is called GEL battery. On the market there are a lot of products completely different in features and value and it is very important to know the manufacturing details to couple the right battery charger (it is not sure that any battery charger is suited and get a better result than the ones in our range that are specific for our batteries) and to come up to the working expectations.

Whatever technology may be it is important to know that batteries have a common effect of self discharge (different for each type of manufacturing technology) and so it is important a recurrent charge (each three months approximately) if they are unused for long periods of time. Batteries suffer from incomplete charge cycle (except "pure lead" technology) and so it is necessary to charge them at the end of the working day (our battery charger is going to supply only the necessary energy and the charge cycle is going to finish earlier). It is also important not to cut off the charge before the battery charger has finished the cycle (green light). Respecting these simple rules, the best result and the best machine output will be obtained.



#### • Belt drive

The circular section grants a high resistance, stillness, reliability and it doesnt need service.



#### Side brush exclusion

It is a system protecting bristles during machine stop or whenever it is not necessary to use it.



#### • Dust vacuum system

It can be found in the main brush area. Together with the mechanical action, it conveys waste and dust that are collected

into the tank through the right filters supplied.



#### • Front dust vacuum system

As well as traditional vacuum system, a vacuum system can be found in the lateral brush/es collection area.

Dust dispersion outside the machine is limited also before the main collection area is reached.



#### • Flap raise system

The main brush collection area is delimited by protections (flaps) touching the ground, better vacuum effect. Whith a big residual

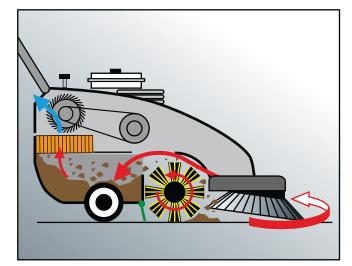
is possible to raise the flap collecting it rather than keep going pushing it on the floor



#### • Filter shaker

It clears filter from dust without touching it or opening the sweeper; the vacuum efficiency is kept at max, granting the best comfort and

output for the user.















BSW 651 M

SWL 700 ET

SWL 700 ST

SWL 900 ET

SWL 900 ST

		Page	Туре	Traction	Main brush width	Main brush + 1 side brush	Main brush + 2 side brushes	Collector tank	Max working capacity	Packaging	Weight with packaging	Weight with packaging	Pcs x pallet
Code	Model				mm / inc	mm / inc	mm / inc	lt/gal	m² / foot²	LxlxH cm/inc	kg	lbs	n°
0.042.0101	BSW 651 M	146	manual	Manual	500/19,68	700/27,56		40/10,58	1500/16146	79x76x46/31x29x18	25	55	5
0.061.0001	SWL 700 ET	147	electric	Mechanical	510/20,08	680/26,77	-	45/11,89	2620/28201	126x63x85/50x25x34	78	172	1
0.061.0002	SWL 700 ST	147	gasoline motor	Mechanical	510/20,08	680/26,77	-	45/11,89	2620/28201	126x63x85/50x25x34	77	169	1
0.061.0003	SWL 900 ET	148	electric	Mechanical	710/27,95	880/34,64		60/15,85	3700/39826	126x83x85/50x33x34	89	196	1
0.061.0004	SWL 900 ST	148	gasoline motor	Mechanical	710/27,95	880/34,64	-	60/15,85	3700/39826	126x83x85/50x33x34	97	213	1
0.061.0005	SWL R 850 ET	149	electric	hydraulic	650/25,59	850/33,46		55/14,53	4900/52743	115x80x120/45x31x47	186	409	1









SWL R 1000 ST





SWL R 1000 ET Bin-Up SWL R 1000 ST Bin-Up



SWL R 1100 ET SWL R 1100 ST

		Page	Туре	Traction	Main brush width	Main brush + 1 side brush	Main brush + 2 side brushes	Collector tank	Max working capacity	Packaging	Weight with packaging	Weight with packaging	Pcs x pallet
Code	Model				mm / inc	mm / inc	mm / inc	lt/gal	m² / foot²	LxlxH cm/inc	kg	lbs	n°
0.061.0006	SWL R 1000 ET	150	electric	hydraulic	700/27,56	920/36,22	1230/48,42	62/16,38	6200/66735	143x91x114/56x36x45	260	572	1
0.061.0007	SWL R 1000 ST	150	gasoline motor	hydraulic	700/27,56	920/36,22	1230/48,42	62/16,38	8280/89124	143x91x114/56x36x45	300	660	1
0.061.0008	SWL R 1000 ET BINUP	151	electric	hydraulic	700/27,56	920/36,22	1230/48,42	62/16,38	6200/66735	163x91x114/66x36x45	310	682	1
0.061.0030	SWL R 1000 ET BINUP	151	electric	hydraulic	700/27,56	920/36,22	1230/48,42	62/16,38	6200/66735	163x91x114/66x36x45	310	682	1
0.061.0009	SWL R 1000 ST BINUP	151	gasoline motor	hydraulic	700/27,56	920/36,22	1230/48,42	62/16,38	8280/89124	163x91x114/66x36x45	350	770	1
0.061.0036	SWL R 1100 ET	152	electric	hydraulic	800/31,50	1050/41,34	1300/51,18	115/30	9700/104409	160x101x130/65x43x52	375	825	1
0.061.0033	SWL R 1100 ST	152	Diesel motor	hydraulic	800/31,50	1050/41,34	1300/51,18	115/30	9700/104409	160x101x130/65x43x52	434	955	1









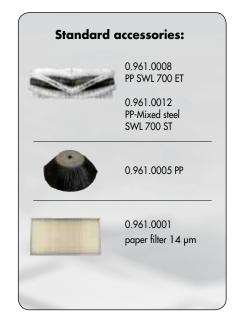


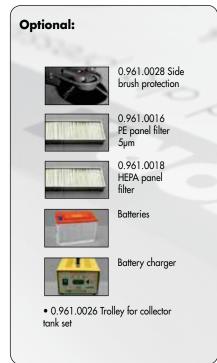
### BSW 651 M code 0.042.0101 main brush width 500mm / 19,68 inc main brush + 1 side brush width 700mm / 27,56 inc 40 lt -10,58 gal / manual collector tank/emptying system max working capacity 1500 m<sup>2</sup>/h - 16146 ft<sup>2</sup> traction manual brushes transmission elastic belt pressure on the brushes adjustable side brush lifting arm system dust-laying system direct frame material dimension / weight $79 \times 76 \times 46 \text{ cm}/25 \text{ kg}$





• Ideal for medium and large surfaces • Large filter surface with electric filter shaker (ET model) • Manual filter shaker (ST model) • Side brush raising control • Suction switch off • Flap raise system • Panel filter in horizontal position • Main brush pressure regulation • Indirect back collection • Quick main brush release • Long life elastic belts • Reclining handle • Suction selection lever. Traction lever. Antistatic device. Wide collector tank • Heavy duty steel frame • Side brush mechanical engagement • Battery and battery charger not included.



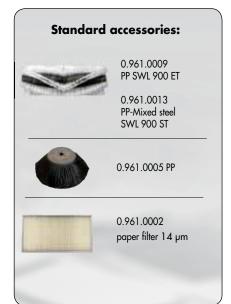


	SWL 700 ET	SWL 700 ST
code	0.061.0001	0.061.0002
main brush width	510mm / 20,08 inc	510mm / 20,08 inc
main brush + 1 side brush width	680mm / 26,77 inc	680mm / 26,77 inc
collector tank	45 lt / 11,89 gal	45 lt / 11,89 gal
max working capacity	2620 m²/h-28201 ft²	2620 m²/h-28201 ft²
traction	mechanical	mechanical
max speed	4 km/h-2,49 mile/h	4 km/h-2,49 mile/h
motor type / power	12V / 400W	Honda 4 HP / 2,9kW
filtering surface	$2 m^2 / 21,53 ft^2$	2 m <sup>2</sup> / 21,53 ft <sup>2</sup>
pressure on the brushes	adjustable	adjustable
filter shaker	electric	manual
dimension / weight	126x63x85cm / 78kg	126x63x85cm /77kg



### **SWL 900 ET**





### Equipped with:

- Ideal for medium and large surfaces Large filter surface with electric filter shaker (ET model) Manual filter shaker (ST model) Side brush raising control Suction switch off Flap raise system Panel filter in horizontal position Main brush pressure regulation Indirect back collection Quick main brush release Long life elastic belts Reclining handle
- Suction selection lever Traction lever Antistatic device
- Wide collector tank Heavy duty steel frame Side brush mechanical engagement Battery and battery charger not included.

### **SWL 900 ST**



# Optional: 0.961.0028 Side brush protection 0.961.0017 PE panel filter 5µm 0.961.0019 HEPA panel filter Batteries Battery charger • 0.961.0027 Trolley for collector tank set

	SWL 900 ET	SWL 900 ST
code	0.061.0003	0.061.0004
main brush width	710mm / 27,95 inc	710mm / 27,95 inc
main brush + 1 side brush width	880mm / 34,64 inc	880mm / 34,64 inc
collector tank	60 lt / 15,85 gal	60 lt / 15,85 gal
max working capacity	3700m²/h-39826 ft²	3700m²/h-39826 ft²
traction	mechanical	mechanical
max speed	4 km/h-2,49mile/h	4 km/h-2,49mile/h
motor type / power	12V / 400W	Honda 4 HP / 2,9kW
filtering surface	$3,02 \text{ m}^2 / 32,50 \text{ ft}^2$	$3,02 \text{ m}^2 / 32,50 \text{ ft}^2$
pressure on the brushes	adjustable	adjustable
filter shaker	electric	manual
dimension / weight	126x83x85 cm / 89 kg	126x83x85 cm / 97 kg



### **SWL R 850 ET**





## Equipped with:

• Ideal for large surfaces • Large filter surface distributed on 5 cartridge filters fitted with electric filter shaker • Side brush raising control • Suction switch off • Flap raise system • Flashing light • Main brush pressure regulation • Indirect back collection • Front dust vacuum system • Quick changing of the main brush and side brush without tools • Long life elastic belts • Suction selection lever • Shock proof steel frame • Traction lever • Antistatic device • Wide collector tank • Heavy duty steel frame • Perfectly balanced weight of the components, thus resulting in totally safe quick changes of direction • Battery and battery charger not included.

# Cartridge polyester filter code: 0.961.0020 Hepa cartridge filter code: 0.961.0180 0.961.0021 Left side arm brush (with brush) Batteries Battery charger

	SWL R 850 ET
code	0.061.0005
main brush width	650 mm / 25,59 inc
main brush + 1 side brush	850 mm / 33,46 inc
collector tank	55 lt / 14,53 gal
max working capacity	4900 m²/h-52743 ft²
traction / limiting gradient	front wheels / 14%
max speed	5,8 km/h-3,60 mile/h
motor type / power	24V / 1670 W (5 motors)
filtering surface	$4 \text{ m}^2 / 43,06 \text{ ft}^2$
pressure on the brushes	adjustable
filter shaker	electric
dimension / weight	115x80x120cm/186 kg





# **SWL R 1000 ET SWL R 1000 ST**





**Equipped with:** 

Watch the video on youtube: www.youtube.com/lavorpro

• Ideal for large surfaces • Large filter surface distributed on 6 cartridge filters fitted with electric filter shaker • Side brush raising control • **Complete right/left side brush** • Suction switch off • Lift flap pedal • Flashing light • Main brush pressure regulation • Indirect back collection • Front dust vacuum system • Quick changing of the main brush and side brush without tools • Long life elastic belts • Suction selection lever • Shock proof steel frame • Traction lever • Antistatic device • Battery level indicator • Wide collector tank • Heavy duty steel frame • Adjustable seat • Perfectly balanced weight of the components, thus resulting in totally safe quick changes of direction • Battery and battery charger not included. • Front light system (optional on request), standard for model code 0.061.0030

### Standard accessories:



0.961.0011 PP SWL R 1000 ET

0.961.0015 PP-Mixed steel SWL R 1000 ST



0.961.0007 PP SWL R 1000 ET

0.961.0023 PP-Mixed steel SWL R 1000 ST



6 x 0.961.0004 paper filter 14 μm

### **Optional:**

- Steel collector tank code: 0.961.0029
- Front light system (on request)
- Anti-trace wheels, code: 0.961.0031
- Polyester filters code: 0.961.0024
- Hepa filters code: 0.961.0025



0.961.0030 Side brush protection

	SWL R 1000 ET	SWL R 1000 ST	SWL R 1000 ET*
code	0.061.0006	0.061.0007	0.061.0030
main brush width	700 mm / 27,56 inc	700 mm / 27,56 inc	700 mm / 27,56 inc
main brush + 1 side brush	920 mm / 36,22 inc	920 mm / 36,22 inc	920 mm / 36,22 inc
main brush + 2 side brushes	1230 mm / 48,42 inc	1230 mm / 48,42 inc	1230 mm / 48,42 inc
collector tank	62 lt / 16,38 gal	62 lt / 16,38 gal	62 lt / 16,38 gal
max working capacity	6200 m²/h-66736 ft²	8280 m <sup>2</sup> /h-89125 ft <sup>2</sup>	6200 m²/h-66736 ft²
traction / limiting gradient	rear wheels / 12%	front wheel / 14%	rear wheels / 12%
max speed	5,8 km/h-3,60 mile/h	5,8 km/h-3,60 mile/h	5,8 km/h-3,60 mile/h
motor type / power	24V / 1150W	Honda 5,5 HP / 4,1kW	24V / 1150W
filtering surface	6 m² / 64,6 ft²	6 m² / 64,6 ft²	6 m² / 64,6 ft²
filter shaker	electric	electric	electric
dimension / weight	143x91x114cm/260kg	143x91x114cm/300kg	143x91x114cm/260kg



















SWL R 1000 ET Bin-Up

SWL R 1000 ST Bin-Up

### **Equipped with:**

- Ideal for large surfaces Large filter surface distributed on 6 cartridge filters fitted with electric filter shaker Side brush raising control Unload device for tank emptying into dust containers up to 110 cm height Complete right/left side brush Suction switch off. Lift flap pedal Flashing light Main brush pressure regulation Indirect back collection Front dust vacuum system Quick changing of the main brush and side brush without tools Long life elastic belts
- Suction selection lever Shock proof steel frame Traction lever Antistatic device Battery level indicator Wide collector tank Heavy duty steel frame Adjustable seat Perfectly balanced weight of the components, thus resulting in totally safe quick changes of direction
- Battery and battery charger not included. Front light system (optional on request).

### **Standard accessories:**



0.961.0011 PP SWL R 1000 ET

0.961.0015 PP-Mixed steel SWL R 1000 ST



0.961.0007 PP SWL R 1000 ET

0.961.0023 PP-Mixed steel SWL R 1000 ST



6 x 0.961.0004 paper filter 14 μm

### **Optional:**

- Steel collector tank code: 0.961.0029
- Front light system (on request)
- Anti-trace wheels, code: 0.961.0031
- Polyester filters code: 0.961.0024
- Hepa filters code: 0.961.0025



0.961.0030 Side brush protection

battery and battery charger not included. • Front light system (optional on request).								
	SWL R 1000 ET BIN-UP	SWL R 1000 ST BIN-UP						
code	0.061.0008	0.061.0009						
main brush width	700mm / 27,56 inc	700mm / 27,56 inc						
main brush + 1 side brush	920mm / 36,22 inc	920mm / 36,22 inc						
main brush + 2 side brushes	1230mm / 48,42 inc	1230mm / 48,42 inc						
collector tank	62 lt / 16,38 gal	62 lt / 16,38 gal						
max working capacity	6200m²/h-66736 ft²	8280m²/h-89125 ft²						
traction / limiting gradient	rear wheels / 12%	front wheel / 14%						
max speed	5,8km/h-3,60mile/h	5,8km/h-3,60mile/h						
motor type / power	24V / 1150W	Honda 5,5 HP / 4,1kW						
filtering surface	6 m² / 64,6 ft²	6 m <sup>2</sup> / 64,6 ft <sup>2</sup>						
filter shaker	electric	electric						
dimension / weight	163x91x114cm/310kg	163x91x114cm/350kg						























0.961.0176 PP SWL R 1100 ET

0.961.0178 PP-Mixed steel SWL R 1100 ST



0.961.0177 PP SWL R 1100 ET

0.961.0179 PP-Mixed steel SWL R 1100 ST



8 x 0.961.0003 paper filter 14 µm

### **Optional:**

- Cartridge polyester filter code: 0.961.0020
- Hepa cartridge filter code: 0.961.0180

• Ideal for large surfaces. • Large filter surface distributed on 8 cartridge filters fitted with electric filter shaker. • Side brush raising control. • On request DSA unload device for tank emptying into dust containers up to 145 cm height. • Complete right/left side brush. • Anti-trace wheels (mod.ET). • Suction switch off. • Lift flap pedal. • Flashing light. • Main brush pressure regulation. • 90° steering angle. • Electric starter. • Service and parking brake. • Hour meter and klaxon. • Antislip platform. • Indirect back collection. • Front dust vacuum system. • Quick changing of the main brush and side brush without tools. • Long life elastic belts. • Suction selection lever. • Shock proof steel frame. • Traction lever. • Antistatic device. • Battery level indicator (mod.ET). • 115 lt wide collector tank. • Heavy duty steel frame. • Adjustable seat. • Battery and battery charger not included. • Front working light system.

	SWL R 1100 ET	SWLR 1100 ST
code	0.061.0036	0.061.0033
main brush width	800mm / 31,50 inc	800mm / 31,50 inc
main brush + 1 side brush	1050mm / 41,34 inc	1050mm / 41,34 inc
main brush + 2 side brushes	1300mm / 51,19 inc	1300mm / 51,19 inc
collector tank	115 lt / 30 gal	115 lt / 30 gal
max working capacity	9700 m²/h-104409 ft²	9700 m²/h-104409 ft²
traction / limiting gradient	front wheels / 12%	front wheel / 20%
max speed	7,5 km/h-4,66 mile/h	7,5 km/h-4,66 mile/h
motor type / power	24V / 1,91 kW	Diesel Yanmar 6,7 Hp / 4,92 kW
filtering surface	6,4 m <sup>2</sup> / 68,89 ft <sup>2</sup>	6,4 m <sup>2</sup> / 68,89 ft <sup>2</sup>
filter shaker	electric	electric
dimension / weight	160x101x130 cm/375 kg	160x101x130 cm/434 kg



<b>Accessories</b>														
											<b>B</b>	<u>-</u>		
			_								SWL R 1000 ET BIN-UP	T BIN-UP		F.
			51 M	0 ET	O ST	0 ET	O ST	50 ET	SWL R 1000 ET	SWL R 1000 ST	8	SWL R 1000 ST	SWL R 1100 ET	SWL R 1100 ST
			BSW 651	SWL 700 ET	SWL 700 ST	SWL 900 ET	SWL 900 ST	SWL R 850 ET	7.	VL R 1	7 Z	K R 1	2	M. R. 1
	0.041.0001	paper panel filter 14 micron	ä		<b>ند</b> 3	S	S	S	5	S	જ	20	20	20
	0.961.0001	paper panel filter 14 micron paper panel filter 14 micron		S	<u>ა</u>	S	S				$\dashv$		$\dashv$	
		polyester panel filter 5 micron		0	0	3	3				$\dashv$		$\dashv$	
	0.961.0016				0				$\dashv$		$\dashv$		$\dashv$	
	0.961.0018	Hepa panel filter			0		_				$\dashv$		$\dashv$	
-	0.961.0017	polyester panel filter 5 micron			_		0		$\dashv$				$\dashv$	
	0.961.0019	Hepa panel filter			_	O	0	_	$\dashv$		-			_
William .	0.961.0003	cartridge paper filter 14 micron						S		•	_		S	5
A VIIII WAR	0.961.0004	cartridge paper filter 14 micron							S	S	S	S		
	0.961.0020	cartridge polyester filter 20 micron			_			0		_			0	$\subseteq$
	0.961.0024	cartridge polyester filter 20 micron							$\overline{}$		0		-	
	0.961.0025	Hepa cartridge filter							0	0	0		_	
A PARTIE OF THE	0.961.0180	Hepa cartridge filter						0					0	의
	0.942.0037	PP side brush	S		_		_		_				_	
	0.961.0005	PP side brush		S	S	S	S						_	
	0.961.0006	PP side brush						S					_	
	0.961.0007	PP side brush							S	0	S	0	_	
	0.961.0177	PP side brush											S	0
	0.961.0181	mixed steel side brush		0	0	0	0						_	
<b>"我们们是那里</b>	0.961.0023	mixed steel side brush							0	S	0	S	_	
ottive	0.961.0179	mixed steel side brush											이	S
AND THE REAL PROPERTY OF THE PARTY OF THE PA	0.942.0050	PP main brush	S											
manufactura and the same	0.961.0008	PP - moplen body main brush - bristle d. 0,5 mm		S	0									
The state of the s	0.961.0009	PP - moplen body main brush - bristle d. 0,5 mm				S	0							
Charles and the second	0.961.0010	PP - moplen body main brush - bristle d. 0,5 mm						S						
Hammille Control	0.961.0011	PP - moplen body main brush - bristle d. 0,5 mm							S	0	S	0		
	0.961.0176	PP - moplen body main brush - bristle d. 0,5 mm											S	0
The second secon	0.961.0012	mixed steel - moplen body main brush		0	S									
The state of the s	0.961.0013	mixed steel - moplen body main brush				0	S							
THE WALL BY THE PARTY OF THE PA	0.961.0014	mixed steel - moplen body main brush						0						
The state of the s	0.961.0015	mixed steel - moplen body main brush							0	S	0	S		
Annual Company of the	0.961.0178	mixed steel - moplen body main brush											0	S
-	0.107.0002	Tubular battery Pb-acid - 12V 118Ah C5		01		01		O2						
S. Control of the Con	0.107.0063	GEL Battery 12 MFP 105 - 12V 105Ah C5		01		01		<b>O</b> 2						
	0.107.0004	Tubular battery Pb-acid - 6V 180Ah C5		O2		О2			04		04	(	<b>D4</b>	
	0.107.0072	GEL Battery 6 MFP 180 - 6V 180Ah C5		O2		O2			04		04		$\Box$	
7 84 3	0.108.0001	LWS 1-12/24V-12A (for battery 0.107.0002-0.107.0063)			_						$\dashv$		$\dashv$	
	0.108.0002	LWS 2-12/24V-25A (for battery 0.107.0004-0.107.0072-0.107.0023)									$\dashv$		$\dashv$	
	3.100.0002	2.10 2 . 2, 241 201 poi ballor y 0.101.0004 0.101.001 2 0.101.0020												

S = standard equipment O = optional

(1)-(2)= n° batteries





GV range is made up of electric generators producing saturated steam at 10 atm pressure and 180°C temperature.

It is ideal for food and baking industry, for private and institutional use, for pharmaceutical and mechanical industry, for dairy factories, for building sectors and so on.

## Performances: temperature, steam production and pressure

The same remarks about pressure and delivery rate made for high-pressure cleaners, have to be taken into consideration also for steam generators; in this case, the important difference is the physical relationship (and so not subjective or debatable) that exists between steam pressure and its temperature: to a fixed pressure values correspond right and univocal temperature. Knowing these values it is easy to identify the ones (like us) who show the right double relation between pressure and temperature.

Outlet steam temperature (not boiler temperature, that is higher)

### Is it better a steam generator or a hot water highpressure cleaner?

purchase (clearly wrong) could be unattended.

and so the purpose that led to the machine

As far as the choice is concerned, the aspects to be considered are the analysis of the task that must be done and all the elements that make up the cost of the operation, i.e. working speed (labour cost) and (more and more important) waste treatment (waste disposal cost).

As far as the working speed is considered, it is important the whole cleaning procedure and not only the effective washing time: with the high-pressure cleaner it is not possible an indoor washing, unless there is a filled in collection system, instead it is necessary to move the washing phase outside; with the steam generator it is not necessary to move outside, it is possible to wash the part exactly where it is, because the water generated can be easily dried.

### Steam generators



Steam at 180°C allow to degrease dirt also without the use of heavy chemical products. If they are necessary to speed up the washing task, it is very important to consider the cost of draining away dirty water.

The danger of chemical products used is generally proportional to the effectiveness against increasing dirt tenacity.

If we wash with the high-pressure cleaner we produce from 10 to 21 litres of polluted water, that must be collected and drained following the current regulation: in a single wash of a couple of hours 2,5 tons of dirty water is produced!

If we wash with a steam generator, the most powerful machine produces 37 litres per hour, with the most part of the liquid that evaporates, with a two hour wash the remaining dampness and disinfecting product is very low!

Analyzing all these subjects it is clear that in particular circumstances (lack of purification plant for water treatment), the steam generator is more advantageous of a high-pressure

On the other side, rinsing speed is the consequence to the delivery rate that hits dirt, so if only the washing phase is considered, high-pressure cleaner is faster.

Steam can be considered water with a related dampness very, very low (superheated steam is just hot air and it doesn't have a significant mechanical action...), with an outlet temperature much higher (180°C) than a high-pressure cleaner: this means that the mechanical power is lower than the one of water, but the degreasing power of steam is much higher.



### • Temperature regulator:

The temperature is set-up by an electronic regulator: it allows to obtain damp steam (low **REGULATOR** temperature) if our application needs a stronger

kinetic energy; or saturated steam if the application needs a little water waste on the surface.

A lower temperature produces a set lower working pressure accordingly to the steam physic law.



### • Discharge valve:

Allows a complete discharge of the boiler (not possible even through gun use). In this way it is possible to remove water and limestone residual

inside the boiler and from the coil surface.

This valve maybe opened only when the boiler is not hot, and it is recommended to accomplish regularly.



### Unlimited autonomy:

The boiler is refilled by a water pump that gets water from an external water tank. This system allows an unlimited autonomy, because it is not

necessary to turn off the steam generator and wait a lower temperature to refill with water.

An automatic control recharges the boiler when necessary. In some models there is an acoustic signal advising about low water level inside the water tank.



### Integrated vacuum:

Dirt is vacuumed inside a tank integrated in the



### • Integrated battery charger

Some models are equipped with integrated battery charger, other ones have the predisposition only. It is possible to charge batteries in different rooms, without coming back to the same place.



### Integrated battery

Standard integrated battery is built with a maintenance free technology and it does not require restrictions about the place for battery

charging. The non stop research allow to use always up-to-date batteries that combined with appropriate battery charger grant machine top performances.



### Multipurpose washable filter

It combines all the advantages of the cartridge filter but with the plus that it can vacuum both dry and wet at the same time.

It can be washed with tap water.













GV Etna 4000

GV Etna 4000 FOAM

GV Katla

GV 3,3 M plus

**GV Vesuvio** 

			Absorbed power	Suction motor	Max pressure	Steam production	Max Temperature	Heating and activation time required	Water tank capacity	Detergent tank capacity	Packaging L×l×H	Packaging weight	Packaging weight	Pieces for pallet
Code	Model	Page	W	W	bar	Kg/h	°C	min	I	ļ	mm Lxlxh	kg	lbs	n°
8.451.0101	GV ETNA 4000	158	3000	1100	7	3,25	165	4-7	5	5	750x600x1030	42,5	93,69	4
8.451.0108	GV ETNA 4000 FOAM	160	3000	1100	7	3,25	165	4-7	5	5	750x600x1030	42,5	93,69	4
8.453.0001	GV KATLA	162	3300	-	9	4,62	175	7-10	5	5	750x600x700	31	91,27	6
8.450.0010	GV 3.3M PLUS	164	3300	-	9	4,62	175	7-10	5	5	595x435x650	37	81,57	2
8.452.0010	GV VESUVIO 10	166	10000	-	10	15	180	9-10	25	5	1300x780x1080	130	290,41	1
8.452.0002	GV VESUVIO 18	166	18000	-	10	22,5	180	7-10	25	5	1300x780x1080	134	295,41	1
8.452.0001	GV VESUVIO 30	166	30000	-	10	37,5	180	7-10	25	5	1300x780x1080	134	295,41	1











			Absorbed power	Suction motor	Max pressure	Steam production	Max Temperature	Heating and activation time required	Water tank capacity	Detergent tank capacity	Packaging L×l×H	Packaging weight	Packaging weight	Pieces for pallet
Code	Model	Page	W	W	bar	Kg/h	°C	min	I	I	mm L x l x h	kg	lbs	n°
8.455.0001	UPDS FUJI	168	2300+350	-	10	37,5	178	5	18	-	1130x710x1110	110	242,50	1
8.456.0001	UPDS STROMBOLI	170	2300+350	-	10	37,5	178	5	25	25	1300x780x1080	140	308,64	1
8.628.0006	GV KOLUMBO	172	350	-	10	37,5	178	5	25	25	1300x780x1080	140	308,64	1
8.628.0025	GV KOLUMBO cordless	172	350	-	10	37,5	178	5	25	25	1300x780x1080	140	308,64	1
8.628.0017	GV KOLUMBO 2 Ways	172	350		10	37,5	178	5	25	25	1300x780x1080	140	308,64	1
8.628.0027	GRAFFITI WASTER	174	350	-	10	47	178	5	25	25	1300x780x1080	120	264,55	1











• Stainless steel body AISI 304 • Ready steam warning lamp • Boiler 3kW \$/\$ AISI 304 - Thickness 25/10 • Low level water lamp indicator • Boiler is refilled continuously • Switch for using chemicals and detergents mixed with steam • Device for cleaning hot water mixed with steam • Washable filter • Flex hose 4 m • Recovery tank capacity 64 l • Drain hose system • Steam regulation • Wheels suitable for use in food processing area • Blower system available • ON/OFF main switch with indicator lamp • ON/OFF boiler switch with indicator lamp

C1	
Standard equipme	nr:
	-
• 5.211.0068 Hose 4 m	6
	R
• 5.209.0151 Hose 2 m	
	~
-	
• 3.753.0085	
- 2.75 / 0105	
• 3.754.0195	-
• 3.754.0005	-
• 5.209.0126	
• 3.754.0192	
	ı
• 3.754.0109	-
	_
• 3.754.0108	-
	100-100-100-100-100-100-100-100-100-100
• 3.754.0110	-
- / 40F 0207	
• 6.405.0207	444
• 3.754.0194	
o r	
• 3.754.0215	
	/2
• 3.754.0196	
	9
• 3.754.0197	
2.754.0204	
• 3.754.0204	
• 5.212.0021	

	GV Etna 4000
Code	8.451.0101
Max steam pressure/temperature	7 bar / 165° C
Boiler absorbed power	3000 W / 230V ~ 50Hz (Ph 1)
Vacuum motor absorbed power	1100 W
Column depression/Air flow	20.39 kPa / 220 m³/h
Water tank/detergent tank capacity	51/51





New simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch with lamp, boiler ON/OFF switch with lamp, steam/detergent regulator/selector, steam flow rate regulator, steam ready warning lamp, low level water indicator lamp with buzzer, steam pressure gauge. Gun with integrated start-up control, adjustment of the vacuum power and steam function activation key.

Unlimited autonomy thanks to the continuous power supply of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work.

Hot air output blow function for quick drying of car interiors with a 2 m flexible hose and flat nozzle supplied. Discharge pipe to quickly drain dirty water collected without removing the head. Two-stage bypass vacuum motor with cyclone effect.





Equipped with 3 pumps: boiler, detergent and water.

Maximum safety thanks to the 2 safety thermostats, 1 pressure switch and 1 mechanical maximum pressure valve.

### Fields of applications

**Steam system:** Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).

Industry (industry, transportation, car washers, car dealers).











# Standard equipment: • 5.211.0068 Hose 4 m • 5.209.0151 Hose 2 m • 3.753.0085 • 3.754.0195 • 3.754.0005 • 5.209.0126 • 6.402.0106 • 6.402.0107 • 6.405.0207 • 3.754.0194 • 3.754.0215 • 3.754.0196 • 3.754.0197 • 5.212.0021

### **Equipped with:**

• Stainless steel body AISI 304 • Ready steam warning lamp • Boiler 3kW S/S AISI 304 - Thickness 25/10 • Low level water lamp indicator • Boiler is refilled continuously • Switch for using chemicals and detergents mixed with steam • Device for cleaning hot water mixed with steam • Washable filter • Flex hose 4 m • Recovery tank capacity 64 l • Drain hose system • Steam regulation • Wheels suitable for use in food processing area • Blower system available • ON/OFF main switch with indicator lamp • ON/OFF boiler switch with indicator lamp

	GV Etna 4000 Foam
Code	8.451.0108
Max steam pressure/temperature	7 bar / 165° C
Boiler absorbed power	3000 W / 230V ~ 50Hz (Ph 1)
Vacuum motor absorbed power	1100 W
Column depression/Air flow	20.39 kPa / 220 m³/h
Water tank/detergent tank capacity	51/51





New simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch with lamp, boiler ON/OFF switch with lamp, steam function/compressed air function selector, water/detergent selector, steam flow rate regulator, steam ready indicator lamp, low water level indicator lamp with buzzer, steam pressure gauge, and air pressure gauge. Gun with integrated start-up control, adjustment of the vacuum power and

steam/foam function activation key.

Multipurpose machine: cleaning with detergent, steam, steam with detergent, foam and hot water. Equipped with a compressed air connection and pressure gauges for air and steam. Unlimited autonomy of steam thanks to the electronically controlled power supply of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work.





Hot air output blow function for quick drying of car interiors with a 2 m flexible hose. Discharge pipe to quickly drain dirty water from the tank. Two-stage bypass vacuum motor. Equipped with 3 pumps: boiler, detergent and water. Maximum safety thanks to the 2 safety thermostats, 1 pressure switch and 1 mechanical maximum pressure valve.

### Fields of applications

**Steam system:** Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).

Industry (industry, transportation, car washers, car dealers).

**Foam system:** Car dealers, car washers, garages, car body shops, and every other place where a source of compressed air is already available







# Standard equipment: • 5.409.0256 Hose 3 m • 3.753.0111 • 3.754.0228 • 3.754.0229 • 3.754.0235 • 3.754.0250 • 3.754.0230 • 6.405.0207 • 6.402.0096 • 3.754.0234 • 6.402.0095 • 3.099.0126

### **Equipped with:**

• Satured steam at 9 bar at a temperature of 175°C • Steam gun with low tension control • S/S body AISI 304 • Boiler 3,3 kW S/S AISI 304. Thickness 25/10 • Low level water lamp indicator • Device for using chemicals and detergents mixed with steam • Heating and activation time required: 7 min. • Steam regulation • Discharge valve • Pressure gauge • The boiler can be refilled from the tank provided (continuous duty) • Wheels suitable for food and processing areas • Storage basket

	GV Katla
Code	8.453.0001
Max steam pressure/temperature	9 bar / 175° C
Boiler absorbed power	3300 W / 230V ~ 50Hz (Ph 1)
Steam production	4,62 kg/h
Boiler type/volume	Inox AISI 304 / 4 l
Water tank/detergent tank capacity	51/51
THE RESIDENCE OF THE PARTY OF T	

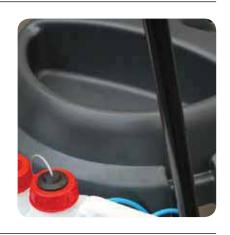




Simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch with lamp, boiler ON/OFF switch with lamp, water/detergent selector, steam flow rate regulator, steam ready indicator lamp, low water level indicator lamp with buzzer, steam pressure gauge. Steam gun with integrated steam/detergent function activation key and quick coupling of accessories.

Unlimited autonomy thanks to the continuous power supply of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work, with major time saving in the operating phase. Boiler with saturated steam at 9 bar at a temperature of 175°C.

Equipped with 3 pumps: boiler, detergent and water. Maximum safety thanks to the 1 safety thermostat, 1 pressure switch and





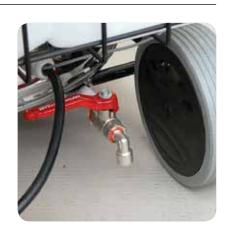
1 mechanical maximum pressure valve. Discharge valve for complete discharge of the boiler; it eliminates water residues and formation of lime scale, thus lengthening the lifespan of the boiler. A 5-litre water and detergent double tank. A rich and complete range of accessories is supplied.

Fieldswater and scale growth, extending boiler's life.

### Fields of applications

### Steam system:

Food & beverage (food industry, catering, beverage, winery). Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare). Industry (industry, transportation, car washers, car dealers).





# GV 3,3 M plus



ent:	equipme	Standard 6
6	Hose 3 m	• 5.409.0256
=	:	• 3.753.0111
		• 3.754.0228
4		• 3.754.0229
7		• 3.754.0235
ſ		• 3.754.0250
	0	• 3.754.0230
***		• 6.405.0207
		• 6.402.0096
		• 3.754.0234
4		• 6.402.0095
110		

• 3.099.0126

### **Equipped with:**

- Satured steam at 9 bar at a temperature of 175°C Steam gun with low tension control Made of AISI 304 stainless steel Boiler 3,3 kW S/S AISI 304. Thickness 25/10 Heating and activation time required: 7 min. Steam regulation
- Discharge valve Pressure gauge Device for using chemicals and detergents mixed with steam The boiler can be refilled from the tank provided (continuous duty)
- Pivoting wheels with brakes, suitable for use in food processing areas.

	GV 3,3 M PLUS
Code	8.450.0010
Max steam pressure/temperature	9 bar / 175° C
Boiler absorbed power	3.3 kW / 230V ~ 50Hz (Ph 1)
Steam production	4.62 kg/h
Boiler type/volume	Inox AISI 304 / 4 l
Water tank/detergent tank capacity	51/51
District Control of the Control of t	





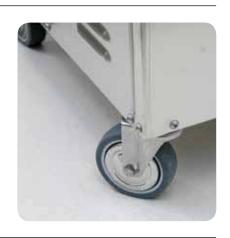
Simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch with lamp, boiler resistance activation lamp, steam flow rate regulator, steam ready indicator lamp, steam pressure gauge. Steam gun with integrated steam/detergent function activation key and quick coupling of accessories. Boiler no water safety stop sensor. No water and water tank full lamp. Water pump activation lamp.

Detergent pump activation lamp. Water/detergent selector key.

Boiler draining key.

Unlimited autonomy thanks to the continuous power supply of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work, with major time saving in the operating phase. Boiler with saturated steam at 9 bar at a temperature of 175°C.

Equipped with 2 pumps: boiler and detergent. Maximum safety thanks to the 1 safety thermostat, 1 pressure switch and 1





mechanical maximum pressure valve.

Discharge valve for complete discharge of the boiler; it eliminates water residues and formation of lime scale, thus lengthening the lifespan of the boiler.

Equipped with 4 pivoting wheels suitable for food environments. A 5-litre water and detergent double tank. A rich and complete range of accessories is supplied.

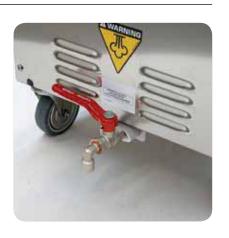
### Fields of applications

### Steam system:

Steam system: Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).

Industry (industry, transportation, car washers, car dealers).







### **GV Vesuvio**





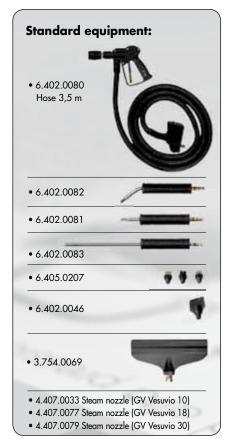




Watch the video on youtube: www.youtube.com/lavorpro

### **Equipped with:**

• Built-in AISI 304 stainless steel • Pivoting wheels with brakes, suitable for use in food processing areas • The boiler can be refilled from the tank provided (continuous duty) • Temperature regulator • Discharge valve • Pressure gauge • Device for using chemicals and detergents mixed with steam • Heating and activation time required: 6 min. • Control with low tension controls • Control panel: ON-OFF main switch, indicator lamp, thermoregulator, boiler activating key, gun activating key • Satured steam at 10 bar at a temperature of 180°C



### **Optional:**

- 6.402.0087 Steam gun with hose (6 m)
- 6.402.0085 Steam gun with hose (10 m)
- 6.402.0093 Steam gun with hose (15 m)
- 6.402.0090 Steam gun with hose (20 m)
- 6.402.0092 Straight lance mm 750 without nozzle
- 6.405.0197 Coupling for tanks Ø 40
- 6.402.0094 Extension 650 mm
- 6.402.0097 Lance with flat nozzle
- 6.402.0098 Brass bristles brush Ø 80

	GV Vesuvio 10	GV Vesuvio 18	GV Vesuvio 30
Code	8.452.0010	8.452.0002	8.452.0001
Max steam pressure/temperature	10 bar / 180° C	10 bar / 180° C	10 bar / 180° C
Boiler absorbed power	10 kW / 400V ~ 50Hz (Ph 3)	18 kW / 400V ~ 50Hz (Ph 3)	30 kW / 400V ~ 50Hz (Ph 3)
Steam production	15 kg/h	22.5 kg/h	37.5 kg/h
Boiler type/volume	Inox AISI 304 / 18 I	Inox AISI 304 / 18 I	Inox AISI 304 / 18 l
Water tank/detergent tank capacity	251/51	251/51	25   / 5



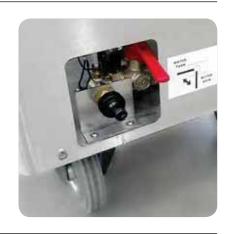


Simple and intuitive control panel, quick-coupling steam gun, main ON/OFF switch, activation lamp, electronic regulator of the temperature with digital display, low water level display with buzzer, boiler activation key, gun activation key, steam pressure gauge, steam selector and detergent selector. Steam gun with integrated steam/detergent function activation key and quick coupling of accessories.

Unlimited autonomy thanks to the continuous power supply

of the boiler, which enables water top-ups in the tank without having to stop the machine or interrupt work, with major time saving in the operating phase. Boiler with saturated steam at 10 bar at a temperature of 180°C.

Equipped with 2 pumps: detergent and water. Maximum safety thanks to the 2 level controls, 1 thermostat, 1 pressure switch and 1 mechanical pressure valve. Discharge valve for complete discharge of the boiler; it eliminates water residues





and formation of lime scale, thus lengthening the lifespan of the boiler. Double tank: 25 litres for water and 5 litres for detergent. Equipped with 2 pivoting wheels and appropriate brake to use in food environments + 2 fixed wheels. A rich and complete range of accessories is supplied with practical accessory holders.

### Fields of applications

### Steam system:

Steam system: Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare). Industry (industry, transportation).

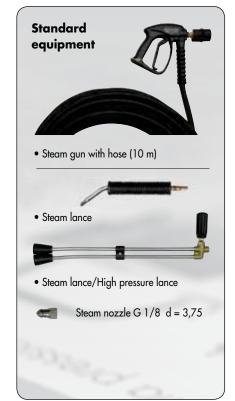






Steam: Vertical burner with high thermal efficiency steel coil. Auxiliary motor for burner. Discharge valve: allows a complete discharge of the boiler. Temperature regulator: the temperature is set up by an electronic regulator. Steam pressure gauge. Temperature regulator. Low fuel lamp. Double pipe gasoil pump. User friendly control panel. Unit can be continually refilled. Safety solenoid valve. Device for cleaning hot water mixed with steam. High Pressure water: Three ceramic coated pistons, brass axial pump head with built-in by-pass valve.

### \*Available March 2015.





	UPDS Fuji *
Code	8.455.0001
Operat. pressure	130 bar
Delivery rate	600 l/h
Max steam pressure/temperature	10 bar / 178° C
Absorbed power	2300 + 350 W / 230V ~ 50Hz (Ph 1)
Steam production	47 kg/h
Burner type/fuel consumption	Diesel / 3.78 l/h
Fuel tank capacity	181





Ultra Pressure Dry Steamer: a new revolutionary cleaning system.

The advantages of two cleaning systems are combined into one single product. An innovative cleaning system that combines the mechanical force of high-pressure water with the degreasing and disinfecting force of dry steam. Equipped with a 18 liters water tank, which makes the high pressure cleaning autonomous. A professional steam generator integrated with a cold

water high-pressure cleaner, dual use for multiple applications in an all-in-one product.

With the cold water high pressure cleaner, which uses the mechanical force of the high pressure, you can quickly remove coarse and superficial dirt.

Thanks to the use of detergents is then possible to act effectively on all kinds of dirt and on all surfaces.

With the degreasing and sanitizing strength of dry steam it is





possible to remove even the more aggressive dirt, allowing to clean car rims, the engine compartment, interior parts, floor mats.

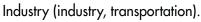
Ideal for: Cleaning and sanitising car interiors, street furniture, playgrounds, removing chewing gum, degreasing mechanical parts in general, etc.

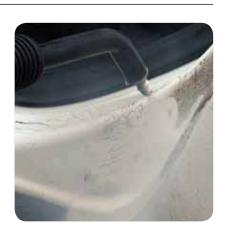
### Fields of applications

### **Steam system:**

Steam system: Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).





Kit 3 brushes

Glass wiper

Black plastic scraper I. 50





**Equipped with:** 

Steam: Vertical burner with high thermal efficiency steel coil. Auxiliary motor for burner. Discharge valve: allows a complete discharge of the boiler. Temperature regulator: the temperature is set up by an electronic regulator. Steam pressure gauge. Temperature regulator. Low fuel lamp. Double pipe gasoil pump. User friendly control panel. Unit can be continually refilled. Safety solenoid valve. Device for cleaning hot water mixed with steam.

High Pressure water: 4 poles electrical motor (1450 RPM) with thermal protection

Available March 2015.	
	UPDS Stromboli *
Code	8.456.0001
Operat. pressure	120 bar
Delivery rate	510 l/h
Max steam pressure/temperature	10 bar / 178° C
Absorbed power	2300 + 350 W / 230V ~ 50Hz (Ph 1)
Steam production	47 kg/h
Burner type/fuel consumption	Diesel / 3.78 l/h
Water tank/fuel tank capacity	251/251





Ultra Pressure Dry Steamer: a new revolutionary cleaning system.

The advantages of two cleaning systems are combined into one single product. An innovative cleaning system that combines the mechanical force of high-pressure water with the degreasing and disinfecting force of dry steam. Equipped with a 15 liters water tank, which makes the high pressure cleaning autonomous. A professional steam generator integrated with a cold

water high-pressure cleaner, dual use for multiple applications in an all-in-one product.

With the cold water high pressure cleaner, which uses the mechanical force of the high pressure, you can quickly remove coarse and superficial dirt.

Thanks to the use of detergents is then possible to act effectively on all kinds of dirt and on all surfaces.

With the degreasing and sanitizing strength of dry steam it is





possible to remove even the more aggressive dirt, allowing to clean car rims, the engine compartment, interior parts, floor mats.

Ideal for: Cleaning and sanitising car interiors, street furniture, playgrounds, removing chewing gum, degreasing mechanical parts in general, etc.

### Fields of applications

### Steam system:

Steam system: Food & beverage (food industry, catering, beverage, winery).

Hospitality, community & healthcare (hospitality, buildings cleaning, spa & sport, education & community, healthcare).

Industry (industry, transportation).



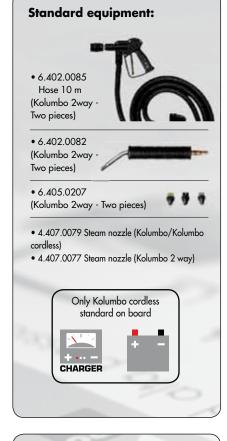


### Steam generators with diesel fuel boiler



### Kolumbo









Watch the video on youtube: www.youtube.com/lavorpro

Kolumbo 2way
With double guns
for two operators

### **Equipped with:**

• Vertical burner with high thermal efficiency steel coil • Auxiliary motor for burner • Discharge valve: allows a complete discharge of the boiler • Temperature regulator: the temperature is set-up by an electronic regulator • Steam pressure gauge • Temperature regulator • Low fuel lamp • Integrated detergent tank with detergent delivery controller by the gun • Double pipe gasoil pump • User-friendly control panel • Unit can be continually refilled • Standard with double guns for 2 operators model Kolumbo 2Way code 8.628.0017• Battery version: Kolumbo Cordless code 8.628.0025

### **Optional:**

- 6.402.0080 Steam gun with hose (3,5 m)
- 6.402.0087 Steam gun with hose (6 m)
- 6.402.0093 Steam gun with hose (15 m)
- 6.402.0090 Steam gun with hose (20 m)
- 6.402.0092 Lance mm 750 without nozzle
- 6.402.0081 Lance mm 175 without nozzle
- 6.402.0083 Lance mm 425 without nozzle
- 6.402.0046 Black plastic scraper I. 50
- 6.402.0069 Glass wiper
- 6.405.0197 Coupling for tanks Ø 40
- 6.402.0094 Extension 650 mm
- 6.402.0097 Lance with flat nozzle
- 6.402.0098 Brass bristles brush Ø 80

	KOLUMBO	KOLUMBO CORDLESS	KOLUMBO 2way
Code	8.628.0006	8.628.0025	8.628.0017
Max steam pressure/temperature	10 bar / 178° C	10 bar / 178° C	10 bar / 178° C
Absorbed power	350 W / 230V ~ 50Hz (Ph 1)	350 W / 1 x 12 DC 75 Ah C5	350 W / 230V ~ 50Hz (Ph 1)
Steam production	37.5 kg/h	37.5 kg/h	47 kg/h
Burner type/fuel consumption	Diesel / 3 l/h	Diesel / 3 l/h	Diesel / 3.78 l/h
Water tank/fuel tank capacity	25   / 25	25   / 25	251/251

### Steam generators with diesel fuel boiler



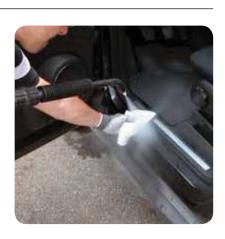


GV Kolumbo is a portable steam generator with a diesel fuel boiler. Unlimited autonomy thanks to no-stop water tank refilling. It does not leave any residues after cleaning. Major water saving (over 90%) compared to normal high-pressure systems. Allows sanitisation tasks thanks to the combined use of steam and detergents. The operator does not require special protective overalls and protective masks.

Portability: it does not need to be connected neither to the water

supply because it is equipped with a water tank, nor to the electrical supply (cordless model) because it has a diesel fuel boiler. It is easy to move around, easy to use, and ready to use. The advantages compared to normal high-pressure washing:

 Ecological: It consumes very little water (90% less than normal high-pressure cleaners) and does not require connection to the water supply.





- It does not require a collection tank to dispose of water reflux.
- Thanks to the high temperature that degreases and dissolves dirt, no polluting chemical products are required.
- Easy to use where required, it does not require connection to the water supply, the operator does not require special work clothing, excess water is not wasted.
- Ideal for maintenance cleaning and makes the bodywork of your car or motorbike shine without the risk of damaging it with the mechanical action of the high-pressure water.

Ideal for: Eliminating stubborn grease and dirt, leaving surfaces clean and shining. Cleaning is easy, all you need to do is use the cleaning and degreasing action of the steam at high temperature and collect residues with a microfibre cloth. Glass and delicate surfaces. Car interiors and for the most difficult parts to reach. Quick, thorough cleaning and sanitisation of mats without wetting them.





### **Graffiti Waster**







### **Equipped with:**

• Vertical burner with high thermal efficiency steel coil • Auxiliary motor for burner • Discharge valve: allows a complete discharge of the boiler • Temperature regulator: the temperature is set-up by an electronic regulator • Steam pressure gauge • Temperature regulator • Low fuel lamp • Integrated detergent tank with detergent delivery controller by the gun • Double pipe gasoil pump • User-friendly control panel • Unit can be continually refilled • Battery and battery charger included



### **Optional:**

- 6.402.0080 Steam gun with hose (3,5 m)
- 6.402.0093 Steam gun with hose (15 m)
- 6.402.0090 Steam gun with hose (20 m)
- 0.011.0001 Calibrated sand (6 x 5 kg)

	Graffiti Waster
Code	8.628.0027
Max steam pressure/temperature	10 bar / 178° C
Absorbed power	350 W / 1 x 12 DC 75 Ah C5
Steam production	37.5 kg/h
Burner type/fuel consumption	Diesel / 3 l/h
Water tank/fuel tank capacity	251/251
174	

### Sand-blasting steam generator







**Graffiti Waster** is a portable steam generator, equipped with diesel fuel boiler, allowing graffiti and dirt removal in general, thanks to the revolutionary system using steam/sand and steam/detergent mashed together. To remove all types of graffiti away from walls, buildings, floors. To restore and clean statues/monuments. Sandblasting walls andrailings. Clean and sand blasting terracotta tiles, roofing tiles and wood. Pickle machineries and surfaces thanks to a combined use of detergents. Unlimited autonomy: thanks to no-stop water tank refilling.

# Main plus in comparison to traditional sand blasting systems using air or water:

- It doesn't leave residuals at the end of cleaning task. No water waste.
- Noiseless.
   Allows sanitization tasks thanks to the combined use of steam and detergents.
   The operator doesn't need protective overalls and protective masks with filters.
   Lack of hazardous dust that are pulled down by steam.
- With a LavorPro vacuum cleaner it is possible to carry out a deep cleaning of the area at the end of the cleaning task Portability: it doesn't need to be connected nor to water supply, because it is equipped with water tank, not to the electrical supply, because it has a diesel fuel boiler. Easy to use and always ready to use. Easy to move.

### What you can do with Graffiti Waster...





Watch the video on youtube: www.youtube.com/lavorpro









In order to complete the chemical products supply and to allow a better applicability and effectiveness, the sprayers are the perfect solution when supply wideness, use versatility and dosage saving are taken into consideration.

They are split into three different categories: precompression, pneumatic charge and continuous pneumatic charge.

Pre-compression sprayers don't need any separate air compressor, because the integrated manual pump is used to compress the tank and vaporize the product. They work

at low pressures, they use plastic materials for easy moving, lightness and perfectly resistant to chemical products, thanks also to FPM seals (Viton).

Pneumatic charge sprayers need to be connected to an air compressor to charge the tank and allow the product vaporization without the connection to the air compressor. They work at high-pressures and so they use capacious steel or stainless steel tanks to allow a greater working autonomy.

Continuous pneumatic foam sprayers need a permanent connection to an air compressor; in this way air mixes with the chemical product producing a soft and voluminous foam that persists on surfaces: with a little chemical product, it is possible to treat wider areas or tough dirt (also on ceilings, inclined and/or slippery walls).

They work at high-pressure and so they use capacious steel or stainless steel tanks to allow a greater working autonomy.



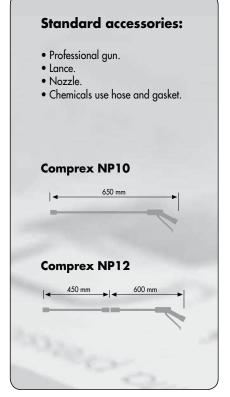
The chemical product spraying is a finishing phase of cleaning task with other machines. The choice of the right product considering the kind of cleaning task grants the best result, complying with the environment and the machine that sprays the chemical product. Our chemical products range has been conceived complying with the strictest rules protecting the environment and avoiding the indiscriminating use of products damaging the environment. The right measuring and respect of the instructions we suggest are the best balance of the economical and technical needs of each up-to-date and aware cleaning task.

			Product	Capacity	Recharging	Working pressure	Calegory	Single packaging weight	Single packaging weight	Single packaging dimensions	Pieces for pallet	Pallet dimensions
Code	Model	Page		liters		bar		kg	lbs	cm L x l x H	N°	cm LxlxH
0.006.0012	COMPREX NP10	175	Sprayer	10,75	Manual	3	Belt	2,3 kg	5	22x22x57	70	120x80x235
0.006.0011	COMPREX NP12	175	Sprayer	14,85	Manual	3	Trolley	4,9 kg	11	38x38x55	24	120x80x233
0.006.0002	SPRAY NV24	176	Sprayer	24	Pneumatic	6	Trolley	17 kg	38	34x34x82	18	102x102x215
0.006.0003	SPRAY NV50	176	Sprayer	50	Pneumatic	6	Trolley	27 kg	60	47x47x107	12	141x107x205
0.006.0007	FOAMJET SV24	177	Foam sprayer	24	Air operating	6	Trolley	17 kg	38	34x34x82	18	102x102x215
0.006.0009	FOAMJET SX24	177	Foam sprayer	24	Air operating	6	Trolley	13 kg	29	34x34x82	18	102x102x215
0.006.0008	FOAMJET SV50	177	Foam sprayer	50	Air operating	6	Trolley	27 kg	60	47x47x107	12	141x107x205
0.006.0010	FOAMJET SX50	177	Foam sprayer	50	Air operating	6	Trolley	20 kg	44	47x47x107	12	141x107x205

# Chemicals & sprayers









Pre-compression sprayers don't need any separate air compressor, because the integrated manual pump is used to compress the tank and vaporize the product. They work at low pressures, they use plastic materials for easy moving, lightness and perfectly resistant to chemical products, thanks also to FPM seals (Viton).

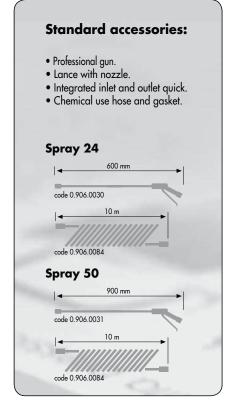
	COMPREX NP10	COMPREX NP12	
code	0.006.0012	0.006.0011	
volume	10,75 l	1 <b>4</b> ,85	
max detergent capacity	8,50 l	12,00 l	
residue	< 0,25	< 0,25	
gasket type	VITON chemicals use	VITON chemicals use	
detergent temperature range	min 1°C - max 40° C	min 1°C - max 40° C	
recharging	manual	manual	
working pressure - flow	3 bar - 1100cc / min.	3 bar - 1100cc / min.	
safety system	discharge valve	discharge valve	
hose type	anti-freeze	anti-freeze	
hose / lance lenght	1150 mm / 650 mm	1800 mm / 1050 mm	
dimension / weight	21x21x55 cm / 1,8 kg - 3,96 lbs	35x26x95 cm / 3,8 kg - 8,37 lbs	



### **Spray**



Pneumatic charge sprayers need to be connected to an air compressor to charge the tank and allow the product vaporization without the connection to the air compressor. They work at high-pressures and so they use capacious steel or stainless steel tanks to allow a greater working autonomy.





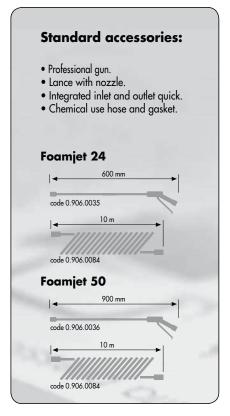
	SPRAY NV24	SPRAY NV50
code	0.006.0002	0.006.0003
capacity/model	24 l/painted	50 l/painted
working pressure	6 bar	6 bar
safety valve	max 8 bar	max 8 bar
pressure indicator	pressure gauge	pressure gauge
level indicator	external column	external column
recharging	pneumatic	pneumatic
pressure regulator	manual	manual
gun connection	1/4" G-F	1/4" G-F
hose type	rilsan	rilsan
hose / lance lenght	10 mt / 600 mm	10 mt / 900 mm
dimension / weight	28x32x75 cm / 15 kg - 33,06 lbs	45x42x100 cm / 25 kg - 55,11 lbs

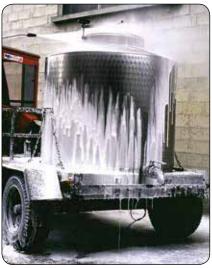


### **Foamjet**



Continuous pneumatic foam sprayers need a permanent connection to an air compressor; in this way air mixes with the chemical product producing a soft and voluminous foam that persists on surfaces: with a little chemical product, it is possible to treat wider areas or tough dirt (also on ceilings, inclined and/or slippery walls). They work at high-pressure and so they use capacious steel or stainless steel tanks to allow a greater working autonomy.





	FOAMJET SV24	FOAMJET SX24	FOAMJET SV50	FOAMJET SX50
code	0.006.0007	0.006.0009	0.006.0008	0.006.0010
capacity/model	24 l/painted	24 l/S/S	50 l/painted	50 l/S/S
working pressure	6 bar	6 bar	6 bar	6 bar
safety valve	max 8 bar	max 8 bar	max 8 bar	max 8 bar
pressure indicator	pressure gauge	pressure gauge	pressure gauge	pressure gauge
level indicator	external column	external column	external column	external column
recharging	air operating	air operating	air operating	air operating
pressure regulator	manual	manual	manual	manual
gun connection	1/4" G-F	1/4" G-F	1/4" G-F	1/4" G-F
hose type	rilsan	rilsan	rilsan	rilsan
hose / lance lenght	10 mt / 600 mm	10 mt / 600 mm	10 mt / 900 mm	10 mt / 900 mm
dimension / weight	28x32x75 cm / 15 kg - 33,06 lbs	28x32x75 cm / 11 kg - 24,25 lbs	45x42x100 cm / 25 kg - 55,11 lbs	45x42x102 cm / 18 kg - 39,68 lbs



### Technology















MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-800F code 3.697.0023  Ph 7.8 - 8.2 1,000 g/ml 5000 ml x 4 pz.	FRAGRANCE-FREE SANITISING DETERGENT	Destroys unpleasant odours, fights the proliferation of bacteria, harmful micro-organisms, fungi and moulds. Contains quaternary ammonium salts.	On all types of hard surface, dilute from 1 to 3%. In the case of tenacious contaminations and aggressive unpleasant odours, dilute up to 6%.	T1

MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-800 code 3.697.0024	FRAGRANCE SANITISING DETERGENT	Destroys unpleasant odours, fights the proliferation of bacteria, harmful micro-organisms, fungi and moulds. Contains quaternary ammonium salts. Leaves a fresh and long-lasting fragrance in the enviroment.	On all types of hard surface, dilute from 1 to 3%. In the case of tenacious contaminations and aggressive unpleasant odours, dilute up to 6%.	T1
Ph 7.8 - 8.2 1,000 g/ml 5000 ml x 4 pz.				T7

MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-680AL code 3.697.0025  Ph 6,6 - 7,0 1,000 g/ml	ALCOHOLIC MAINTENANCE DETERGENT	Quick-drying universal neutral detergent. Anti-dust effect for 4-5 days. Leaves a pleasant fragrance in the environment. Does not leave residues.	On all types of washable shiny or hard surface such as glass, stone or ceramic, dilute with water from 0.5% to 1 %.	T1 13 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
Ph 6,6 - 7,0 1,000 g/ml 5000 ml x 4 pz.				T7



### **Technology**















floor scrubberdrier

MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-650 code 3.697.0026  Ph 6,3 - 6,7 1,000 g/ml  5000 ml x 4 pz.	NON ALCOHOLIC MAINTENANCE DETERGENT	Universal neutral detergent, does not corrode polymers, natural or synthetic waxes. Leaves a pleasant fragrance in the environment. Does not leave residues.	On all types of washable hard surfaces, even if protected by wax and/or sealants, dilute in water to 0.5%-1%.	T1 📝 T3 済 T7

MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-640WM code 3.697.0027	NON STRATIFYING WAX WASH DETERGENT	Cleans and shines surfaces. Regenerates protective and wax treatments. Non filmo- genous and leaves a pleasant fragrance in the environment.	On all types of washable hard surfaces, including floors protected by wax and/or sealants, dilute in water to 0.5%-1%.	T1 17 17
Ph 5,9 - 6,9 1,000 g/ml 5000 ml x 4 pz.				

MODEL	DESCRIPTION	PROPERTIES	USE:	
Ph 8,8 - 9,2 1,000 g/ml 5000 ml x 4 pz.	FRAGRANCE-FREE WAX REMOVING DETERGENT	Removes any type of wax or polymer (even if old or stratified).	According to the degree of dirt and the thickness of the film, dilute in water from 1% to 10%. In extreme situations, dilute in water up to 20%.	T1 17 17



### **Technology**















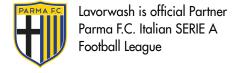
MODEL	DESCRIPTION	PROPERTIES	USE:	
LCB-740F code 3.697.0031  Ph (sol. 1%) 6.9 - 7.9 1,000 g/ml  5000 ml x 4 pz.	ALKALINE MULTIPURPOSE DETERGENT	Dissolves and detaches organic and inorganic dirt.	On all types of hard washable surfaces, ceramic or enamelled surfaces, windows and doors, equipment and industrial machine tools. Dilute in water from 1% to 2%.	T1 72 74 74 77 77 77 77 77 77 77

MODEL	DESCRIPTION	PROPERTIES	USE:	
LCN-600SVF code 3.697.0033  Ph 5,8 - 6,2 0,950 g/ml 5000 ml x 4 pz.	SOLVENT DETERGENT OF VEGETABLE ORIGIN	Eliminates tar, rubber, glue and adhesive residues. Removes even stratified (acrylic or polymer) wax films. Disintegrates persistent dirt of animal or mineral origin.	According to the degree of dirt and thickness of the film, dilute in water from 0.5% to 2%.	T1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7

MODEL	DESCRIPTION	PROPERTIES	USE:		
LCN-700 code 3.697.0035	CARPET AND TEXTILE WASH DETERGENT	Removes dirt, regenerates and protects fibres. Does not leave residues and releases a pleasant fragrance.	Dilute in water from 2% to 5%.	T3	
Ph 6.8 - 7.2 1,010 g/ml 5000 ml × 4 pz.					

**GENERAL TERMS OF SALE** Goods travel at buyer's risk.

Images and technical specifications of products and accessories are not binding and can be modified without notice.





Watch the video on youtube: www.youtube.com/lavortv www.youtube.com/lavorpro





