#### **Waste oil suction-drainers**



**SUCTION POWER** 

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SUCTION-DRAINERS

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**GRAVITY DRAINERS** 

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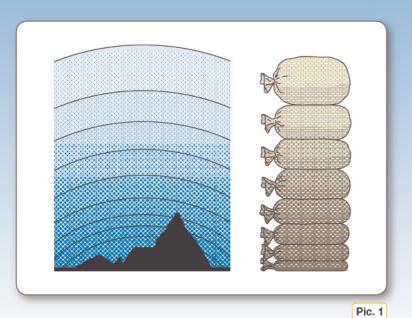
SUCTION DRAINER-DISPENSERS WITH AIR-OPERATED PUMP page 54



#### **Suction power**

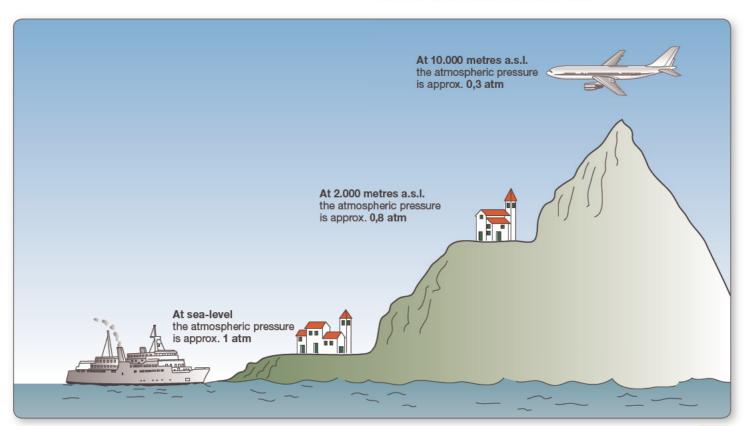
To understand the concept of suction power it is important to remember the difference between pressure and depression.

In this way the characteristics and advantages offered by the oil drainer will be clearly understood.

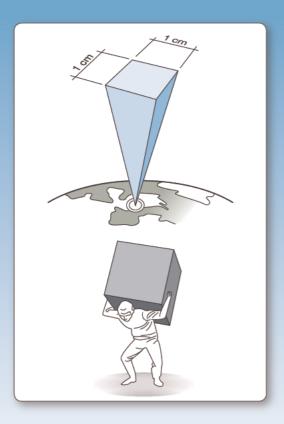


Therefore, however, it is necessary to refer to the structure of the atmosphere that surrounds us and, above all, its barometric stratification and **compressibility**. Its lower layers, i.e. those nearest the ground, are more densely compressed than those higher up, precisely like what **happens with a pile of bags of compressible material**. (see Pic. 1).

The atmospheric pressure decreases as the altitude increases: at sea level it is 1 atm, at 2.000 metres a.s.l. it is approx. 0,8 atm, at 10.000 metres it falls to approx. 0,3 atm (see Pic. 2).



Pic. 2



In general, pressure is obtained by compressing any type of fluid inside a given container, until reaching the required values: 1 - 3 - 10 - 100 atm without limits, apart from those of the fluid container's structure and the power of the pump used.

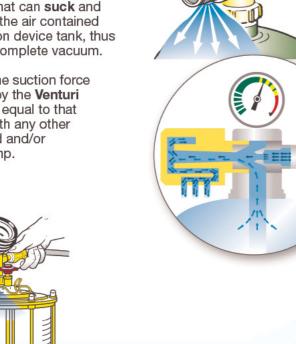
On the other hand, a **depression** or vacuum is obtained by removing all the air contained in a given recipient or tank, and the maximum value obtainable (vacuum or suction power) is independent of the pumping or suction system used. Whatever the pump used (electric pump, air pump, Venturi principle, etc.) the maximum depression (or suction power) obtained is equal to the atmospheric pressure outside the suction system.

In fact, this value cannot be exceeded because, obviously, it is not possible to remove from a container more air than what is contains.

#### Pump operation with Venturi principle

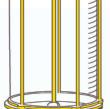
Connect a compressed air line (7 atm) to the special connection on the suction device. Obliged to pass through a special "MULTIPLIER NOZZLE" of the Venturi unit, the air considerably increases in speed, creating "EDDIES" that can suck and "pump" all the air contained in the suction device tank, thus creating a complete vacuum.

Therefore the suction force generated by the Venturi principle is equal to that obtained with any other air-operated and/or electric pump.



For correct depressurisation, the pressure of the air passing through the Venturi system must be between 6,5 and 7 bar.







#### Flexible and metal probes - Special connections

All the drainers used for changing engine oil come with a series of standard metal and flexible probes in addition to connections for engines with incorporated probes.



ø 5 mm - length 700 mm

ø 5 mm - length 700 mm

ø 6 mm - length 700 mm ø 6 mm - length 700 mm

ø 7 mm - length 1000 mm

ø 8 mm - length 700 mm

#### Art. 45560 consisting of:

- Art. 45504 flexible probe
- Art. 45505 rigid probe- Art. 45506 flexible probe
- Art. 45516 rigid probe
- Art. 45517 flexible probe
- Art. 45518 flexible probe
- Art. 45500 connection for incorporated probes Volkswagen
- Art. 45501 connection for incorporated probes BMW
- Art. 45502 connection for incorporated probes Citroen

Art. 40002 conficction for incorporated probes out of

Note: the probes can be supplied separately

# Art. 45515 Art. 45526 Art. 45527 Art. 45528 Art. 45538 Art. 45539 Art. 45540

Non-standard probes available by request. Specify for vehicles requiring a longer probe for draining the oil from the bottom of the sump.

Art. 45515 flexible probe ø 5 mm - length 1000 mm

Art. 45526 flexible probe ø 6 mm - length 1500 mm

Art. 45527 flexible probe ø 7 mm - length 1500 mm

Art. 45528 flexible probe ø 7 mm - length 2000 mm

Art. **45538** flexible probe ø 8 mm - length 1500 mm for suction in trucks

Art. 45539 flexible probe ø 8 mm - length 2000 mm

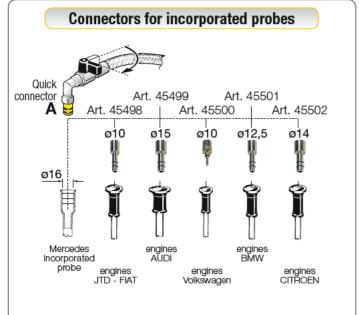
Art. 45540 special flexible probe ø 12 mm -

length 700 mm for quick suction.

Already supplied with the following articles:

Art. 45100 - 45110 - 45150 - 45180 - 45250 -

45280 - 43116 - 43190 - 42164 - 42215



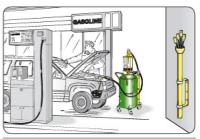
- for Mercedes cars connect the quick-release connector A of the oil drainer directly to the probe incorporated in the engine.

- for JTD Fiat Group cars: Art. 45498
- for Audi cars: Art. 45499
- for Volkswagen cars: Art. 45500
- for BMW cars: Art. 45501
- for Citroen cars: Art. 45502



#### Art. 45570

Wall-mounted probe kit, a handy container for the longest and less-used probes, useful for avoiding having to carry them with the drainer





#### Art. 45550

3/8" connection for outboard engines supplied with the drainers for boating



#### Art. 45551

3/4" connection for inboard engines supplied with the drainers for boating



#### Air-operated drainers.

Ideal for quick engine oil change of any motor vehicle. The old oil is sucked from the engine by means of the probes supplied.

After depressurisation the drainer works independently without requiring continuous connection to the compressed air system Suck hot oil at 70 - 80 °C.





	portable	Wileel-Illounteu
Article	43016	43024
Tank capacity litro	s 16	24
Max draining capacity litro	s 13	20
Air pressure for depressurisation b	er 6,5 - 7	6,5 - 7
Depressurisation time m	n <b>1</b>	1 - 1,5
Noise level	B <b>75</b>	75
Suction speed //m	n 1,5 - 2	1,5 - 2
Total suction capacity litro	9 - 10	15 - 16
Suction hose	m 2	2
Set of probes A	t. 45560	45560
Packing N° - n	<sup>3</sup> 1 - 0,080	1 - 0,090
Weight 👸	g 10,5	13,7
Dimensions (A - B - C) C	n 25.5 - 22.5 - 84.5	28 - 33 - 86

Caution: do not suck brake fluids, fuels, flammable or corrosive liquids



#### **Details and advantages**

Vacuum gauge for checking suction power

Venturi inlet with customisable 1/4" connection

Air silencer

For correct depressurisation, the pressure of the air passing through the Venturi system must be between 6,5 and 7 bar





## PROFESSIONAL waste oil suction-drainers

**Gravity and air operated suction drainers**. Ideal for quick engine oil change of any motor vehicle. Waste oil can be collected by gravity, using the bowl mounted on the adjustable support, or by suction through the supplied probes. After depressurisation the drainer works independently without requiring continuous connection to the compressed air system. **Suck hot oil at 70 - 80** °C.

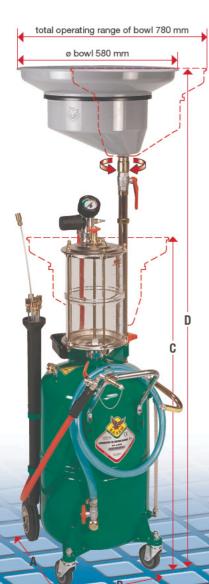




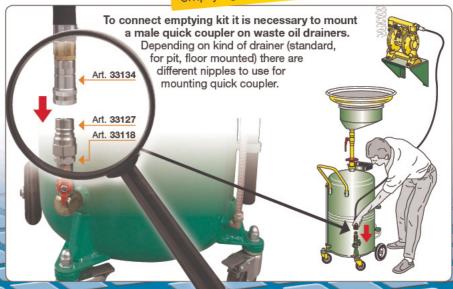




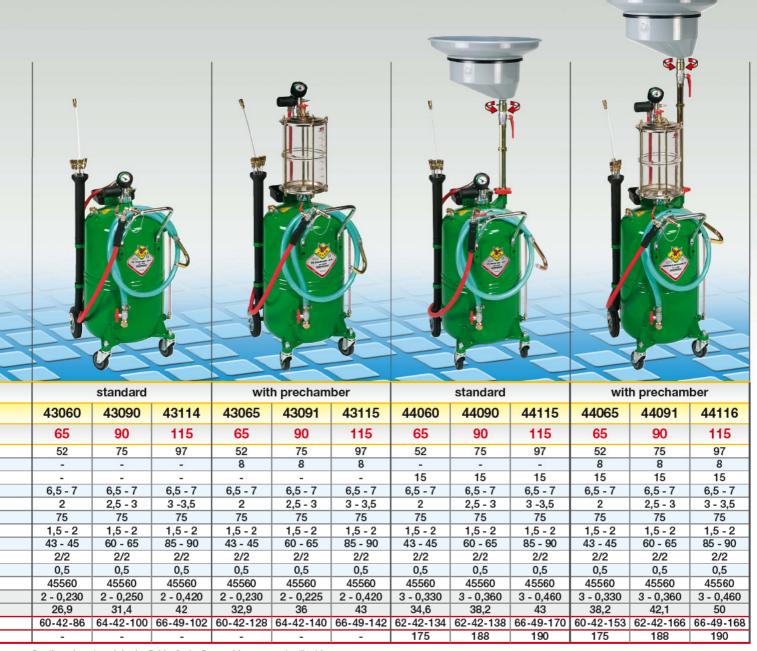
Article	42065	42090	42115	42066	42091	42116	
Tank capacity lit	es <b>65</b>	90	115	65	90	115	
Max draining capacity lit	es <b>52</b>	75	97	52	75	97	
Prechamber capacity lits	es -	-	-	-	-	-	
Bowl capacity lits	es 15	15	15	15	15	15	
Air pressure for depressurisation	ar -	-	-	-	-	-	
Depressurisation time	in –	3.50	-	(57)	-	(5)	
Noise level	B -	-	-	-	-	-	
Suction speed //n	in –	1.71	-	15.70	-	1.7	
Total suction capacity lits	es -	)=(	-	:: <b>-</b> :	-	) <b>-</b> <	
Discharging/suction hose	m draining 2	draining 2	draining 2	draining 2	draining 2	draining 2	
Max pressure for draining	ar 0,5	0,5	0,5	0,5	0,5	0,5	
Set of probes	rt	-	-	-	-	-	
Packing N° - 1	n <sup>3</sup> 2 - 0,270	2 - 0,300	2 - 0,420	2 - 0,270	2 - 0,300	2 - 0,420	
Weight	kg 33	34	42	33	34	42	
Dimensions (A - B - C)	m 60-42-127	64-42-140	66-49-142	60-42-134	64-42-125	66-49-128	
Ingombro max (D)	m 178	190	192	175	170	173	
5							



To connect waste oil gravity and suction drainers to emptying kit see page 50

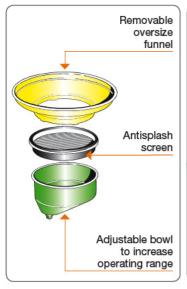


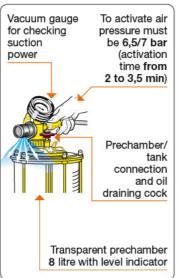
#### combined drainers

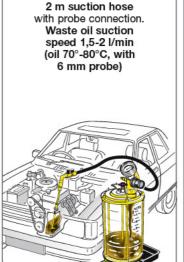


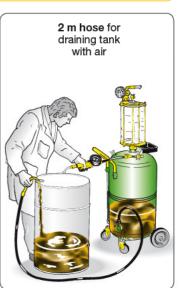
Caution: do not suck brake fluids, fuels, flammable or corrosive liquids

#### **Details and advantages**











Air-operated combination suction-drainer (50 litre) with pantograph collection bowl and wheel-mounted 115 litre tank. Waste oil can be collected whether by gravity, using the recovering basin on the floor or in the upper position if vehicles are over car lift, or by suction through the supplied probes. After depressurisation the drainer works independently without requiring continuous connection to the compressed air system Suck hot oil at 70 - 80 °C







suction-drainers

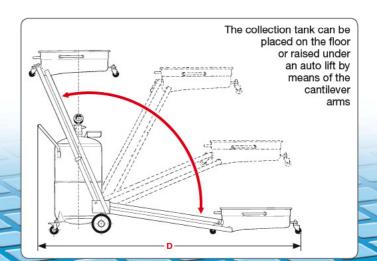


combination

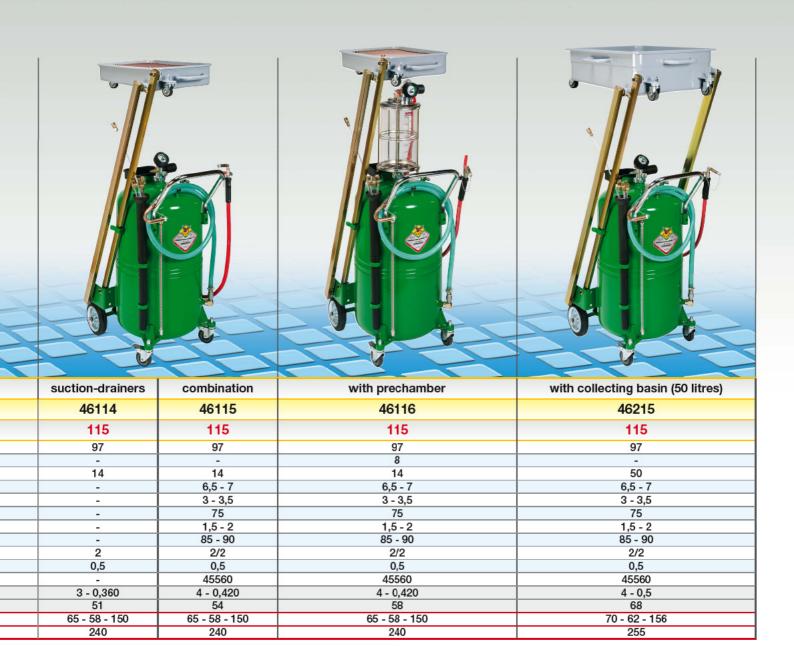
Article	46064	46065	
Tank capacity litres	65	65	
Max draining capacity litres	52	52	
Prechamber capacity litres	-	-	
Bowl capacity litres	14	14	
Air pressure for depressurisation bar	-	6,5 - 7	
Depressurisation time min	-	2	
Noise level dB	-	75	
Suction speed //min	-	1,5 - 2	
Total suction capacity litres	-	43 - 45	
Discharging/suction hose m	2	2/2	
Max pressure for draining bar	0,5	0,5	
Set of probes Art.	-	45560	
Packing N° - m³	3 - 0,247	4 - 0,310	
Weight kg	38,2	42,7	
Dimensions (A - B - C) cm	57 - 49 - 100	57 - 49 - 100	
Max dimensions (D) cm	200	200	

Caution: do not suck brake fluids, fuels, flammable or corrosive liquids





cars trucks



#### **Details and advantages**

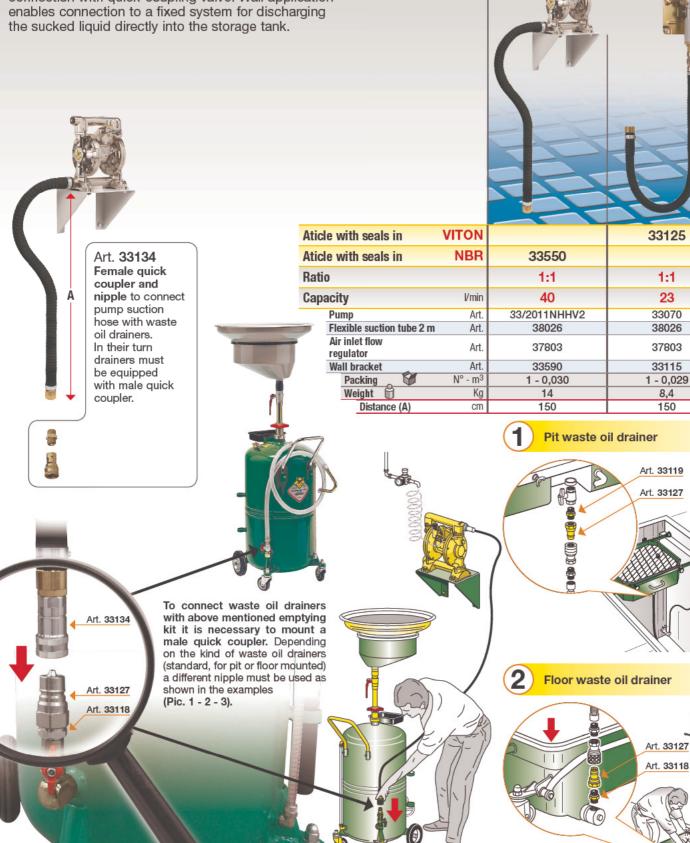




#### Modular kit for TRANSFER or EMPTYING

oil, waste oil and similar

Wall-mounted transfer kit. A practical solution for draining movable equipment, waste oil suction/drainers by means of connection with quick-coupling valve. Wall application enables connection to a fixed system for discharging the sucked liquid directly into the storage tank.



Standard waste oil drainer



Wheel-mounted waste oil drainers. Ideal for use with jerry cans, drums and containers of various sizes, up to 220 kg. Suitable for gravity draining of engine, gearbox and differential oil from all motor vehicles placed on an car lift or pit.

The height-adjustable bowl (15 litres) is mounted on a swivel joint that facilitates positioning.





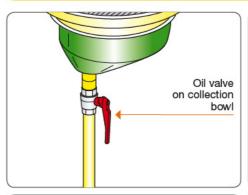


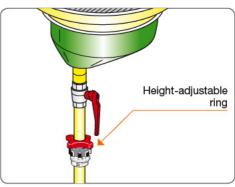
	adjustable bowl	Wileel-Illouitteu	Wilcel-Illouitteu
Article	42004	42050	42000
Trolley capacity litro	s -	20 - 60	180 - 220
trolley A	t	80050	80200
Bowl capacity litre	s 15	15	15
Antisplash screen	yes	yes	yes
Drum clamping ring	yes	yes	yes
Packing N° - n	<sup>3</sup> 1 - 0,350	2 - 0,120	2 - 0,150
Weight 👸	g <b>9</b>	17	29
Dimensions (A - B - C)	n 58 - 58 - 115	64 - 50 - 120	70 - 77 - 130
Max dimensions (D) o	n 115	180	180

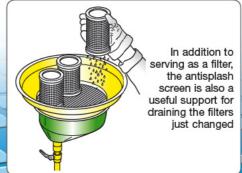
Caution: do not use with flammable or corrosive liquids

# total operating range of bowl 780 mm ø bowl 580 mm C

#### **Details and advantages**





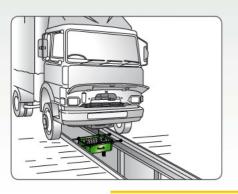


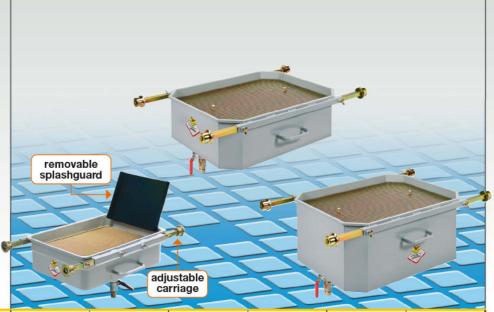




#### Pit waste oil drainers.

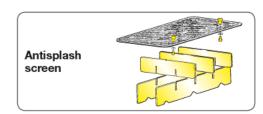
Suitable for gravity draining of engine, gearbox and differential oil from all motor vehicles placed on a pit. Equipped with antisplash screen which can be used as a support for draining oil filters.

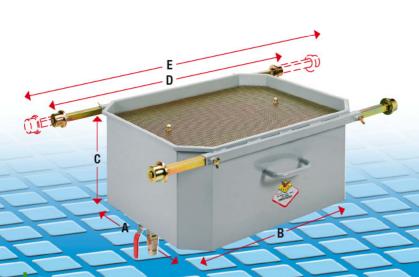


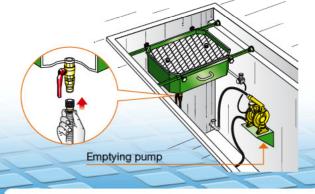


Article	42059	42060	42061	42062	42055	42056
Tank capacity litres	65	65	110	110	150	150
Wheels	adjustable carriage	adjustable carriage	adjustable carriage	adjustable carriage	adjustable carriage	adjustable carriage
Emptying	by suction	by gravity	by suction	by gravity	by suction	by gravity
Equipped with	quick-release connector	hose-holder ø 30	quick-release connector	hose-holder ø 30	quick-release connector	hose-holder ø 30
Packing N° - m³	1 - 0,140	1 - 0,140	1 - 0,220	1 - 0,220	1 - 0,270	1 - 0,270
Weight 🗑 kg	27,5	28	39,5	40	53,5	54
Dimensions (A - B - C) cm	51 - 66 - 22	51 - 66 - 22	63,5 - 79 - 26,4	63,5 - 79 - 26,4	63,5 - 79 - 35,7	63,5 - 79 - 35,7
Dimensions (D - E) cm	75 - 120	75 - 120	84 - 125	84 - 125	84 - 125	84 - 125

Caution: do not use with flammable or corrosive liquids





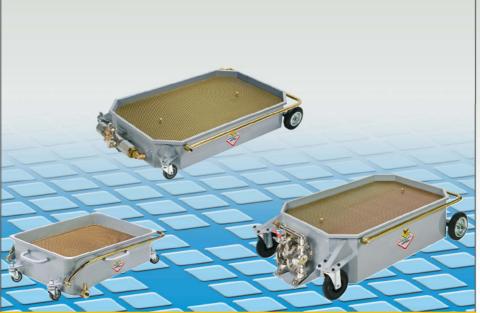


The drained oil can be transferred from the collection bowl to the storage tank by gravity or by using an emptying pump connected to the fixed system



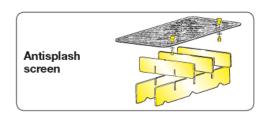
Wheel-mounted floor waste oil drainers. Suitable for gravity draining of engine, gearbox and differential oil from all motor vehicles. Equipped with antisplash screen which can be used as a support for draining oil filters.



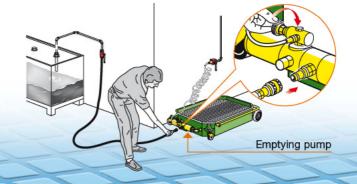


Article	42069	42070	42072	42073	42075	42076
Tank capacity litres	50	50	95	95	150	150
Wheels	4 castors	4 castors	2 castors + 2 fixed	2 castors + 2 fixed	2 castors + 2 fixed	2 castors + 2 fixed
Emptying	by suction	by suction	by suction	pneumatic	by suction	pneumatic
Equipped with	quick-release connector	juction tube	quick-release connector	pump 33070	quick-release connector	pump 33/2011NHHV2
Packing N° - m³	1 - 0,140	1 - 0,140	1 - 0,200	1 - 0,200	1 - 0,330	1 - 0,330
Weight 🗑 kg	20,5	21	37,5	40	53	61
Dimensions (A - B - C) cm	63 - 66 - 23,5	63 - 66 - 23,5	72,5 - 99 - 20	72,5 - 99 - 20	74,2-99,6-29,5	74,2-99,6-29,5
Dimensions (D - E) cm	78	78	119,9	119,9	123,8	123,8

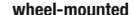
Caution: do not use with flammable or corrosive liquids







The drained oil can be transferred from the collection bowl to the storage tank by suction with the incorporated probe or by an emptying pump connected to the fixed system or mounted directly on the collection basin





### Suction drainer with pump

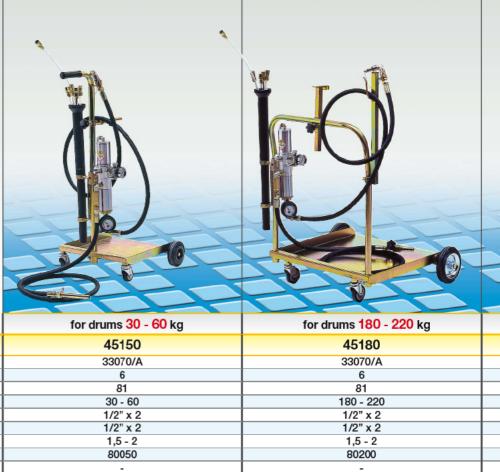
oil, waste oil, antifreeze liquid and similar products

#### Air pump operated fixed drainers.

They enable **draining** by means of the probes supplied. The air pump, equipped with special VITON seals, is particularly suitable for sucking and delivering fluids such as: various oils, old oil, antifreeze liquid, diesel oil and similar products.

Wall-mounting enables connection to a fixed system for draining the sucked liquid directly in the storage tank.

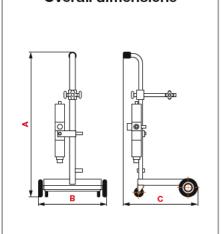




Article		45150	45180	
Pump	Art.	33070/A	33070/A	
Max air pressure	bar	6	6	
Noise level	dB	81	81	
Suitable for drums	kg	30 - 60	180 - 220	
Lenght of suction hose	m	1/2" x 2	1/2" x 2	
Lenght of draining hose	m	1/2" x 2	1/2" x 2	
Suction speed	l/min	1,5 - 2	1,5 - 2	
Trolley	Art.	80050	80200	
Column	Art.		-	
Wall bracket	Art.		-	
Wall-mounted probe kit	Art.		-	
Hose reels	Art.			
Set of probes	Art.	45560	45560	
Special probe	Art.	45540 ø 12	45540 ø 12	
Packing 💮	N° - m³	2 - 0,080	2 - 0,113	
Weight 🗒	kg	19,5	32,1	
Dimensions (A - B	- C) cm	100 - 50 - 64	87 - 76 - 67	

Caution: do not suck any flammable or corrosive liquids

#### Overall dimensions

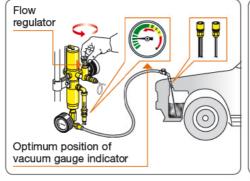


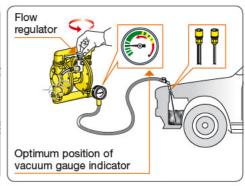
#### **Details and advantages**

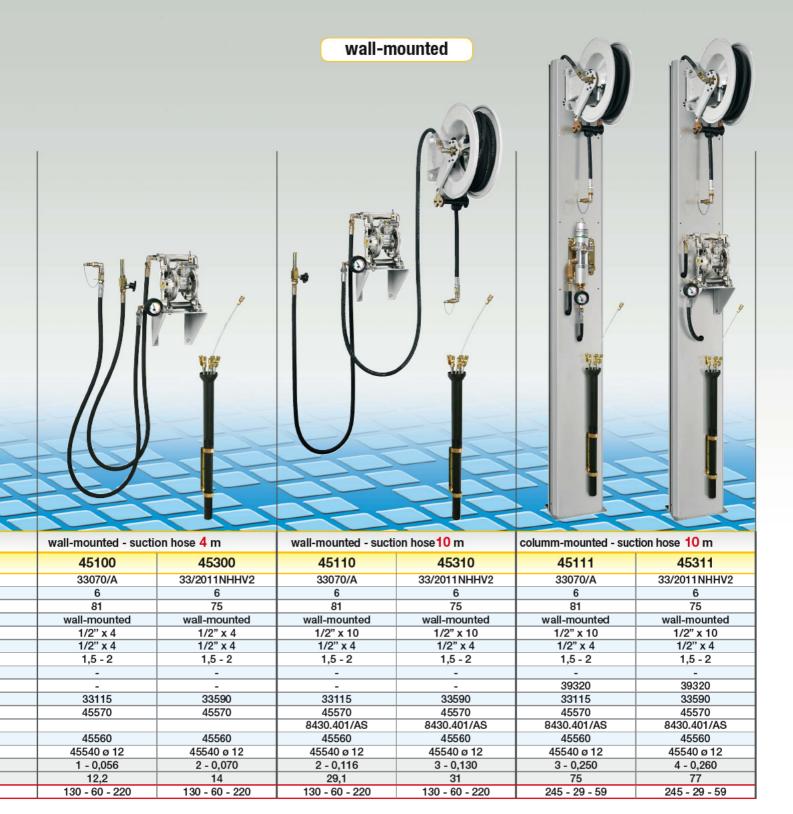
For correct draining, the pump must operate slowly.

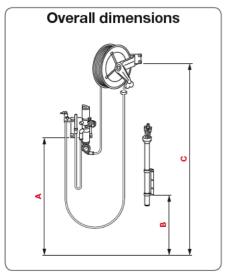
To adjust the working speed, operate the flow regulator, "metering" the inlet air feed.

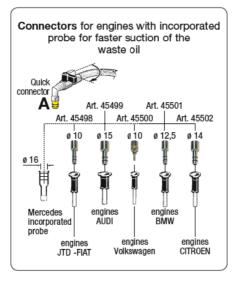
Make sure the vacuum gauge indicator is always in the optimum position

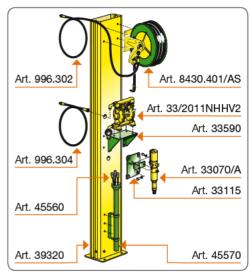














#### **Suction** drainer-dispensers

yes

1 - 0,015

6,2

13,6 - 6,5 - 36

N° - m<sup>3</sup>

kg

cm

IN ACCORDANCE WITH DIRECTIVE: ATEX 94/9

for fuels

Wheel-mounted air-operated suction systems, for the management of fuels.

The air pump, equipped with special VITON seals, is suitable for sucking petrol or diesel oil from any vehicle or motorcycle by means of the probes or connections supplied. The wheel-mounted drainer with pump is easy to handle, versatile. The system is equipped with an earth connection for discharging electrostatic current.

Article

Pump suction

Suction speed

Wall bracket

Set of probes

Trolley

Suitable for drums

Lenght of suction hose

Lenght of draining hose

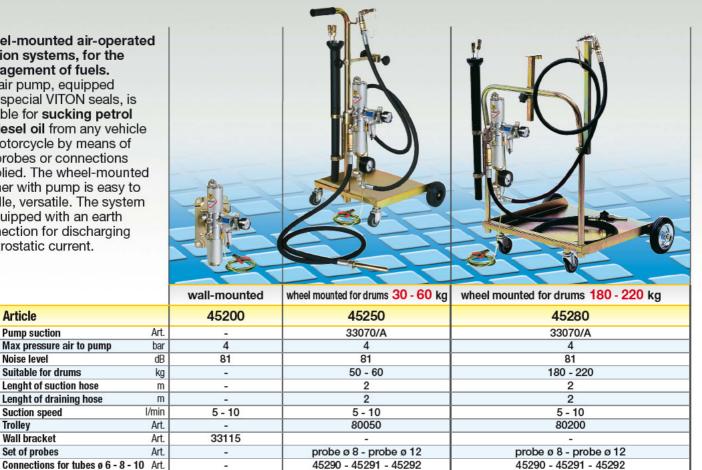
Earth connection 3 m

Dimensions (A - B - C)

**Packing** Weight

Noise level

Max pressure air to pump



#### **Details and advantages**

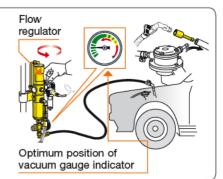
For correct draining, the pump must operate slowly. To adjust the working speed, operate the flow regulator, "metering" the inlet air feed. Make sure the vacuum gauge indicator is always in the

yes

2 - 0,080

19,5

50 - 50 - 100



yes

2 - 0,113

32,1

76 - 67 - 87

Art. 45290 Connection for tube ø 6

optimum position



Art. 45291 Connection for tube ø 8

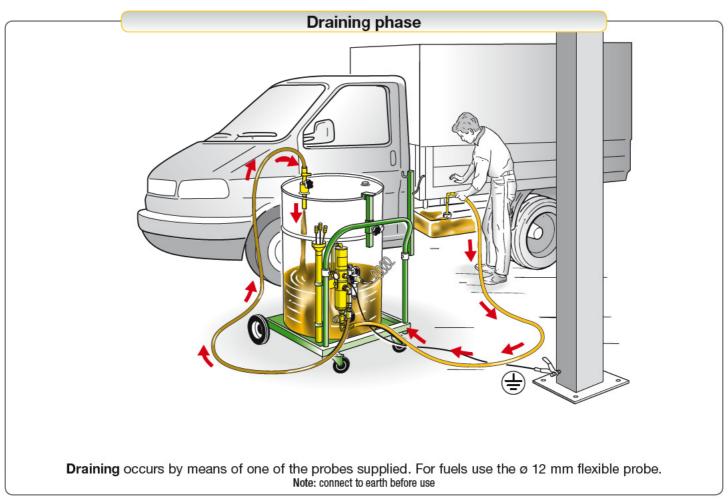


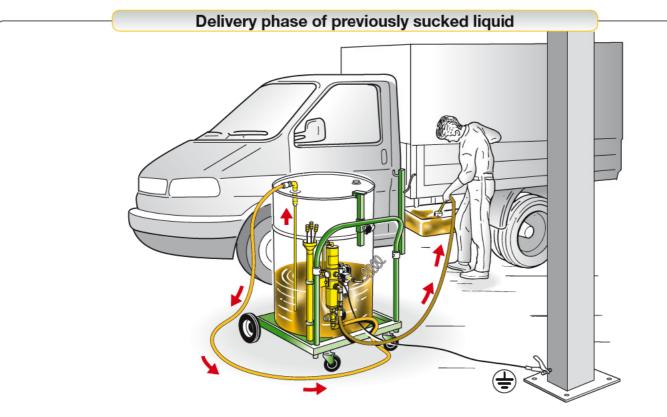
Art. 45292 Connection for tube ø 10





#### **Dual use**





**Delivery** of sucked liquids occurs by reversing the position of the tubes. Insert the suction tube in the container of previously sucked liquid. Insert the draining tube in the container (or tank) just emptied.

Note: connect to earth before use