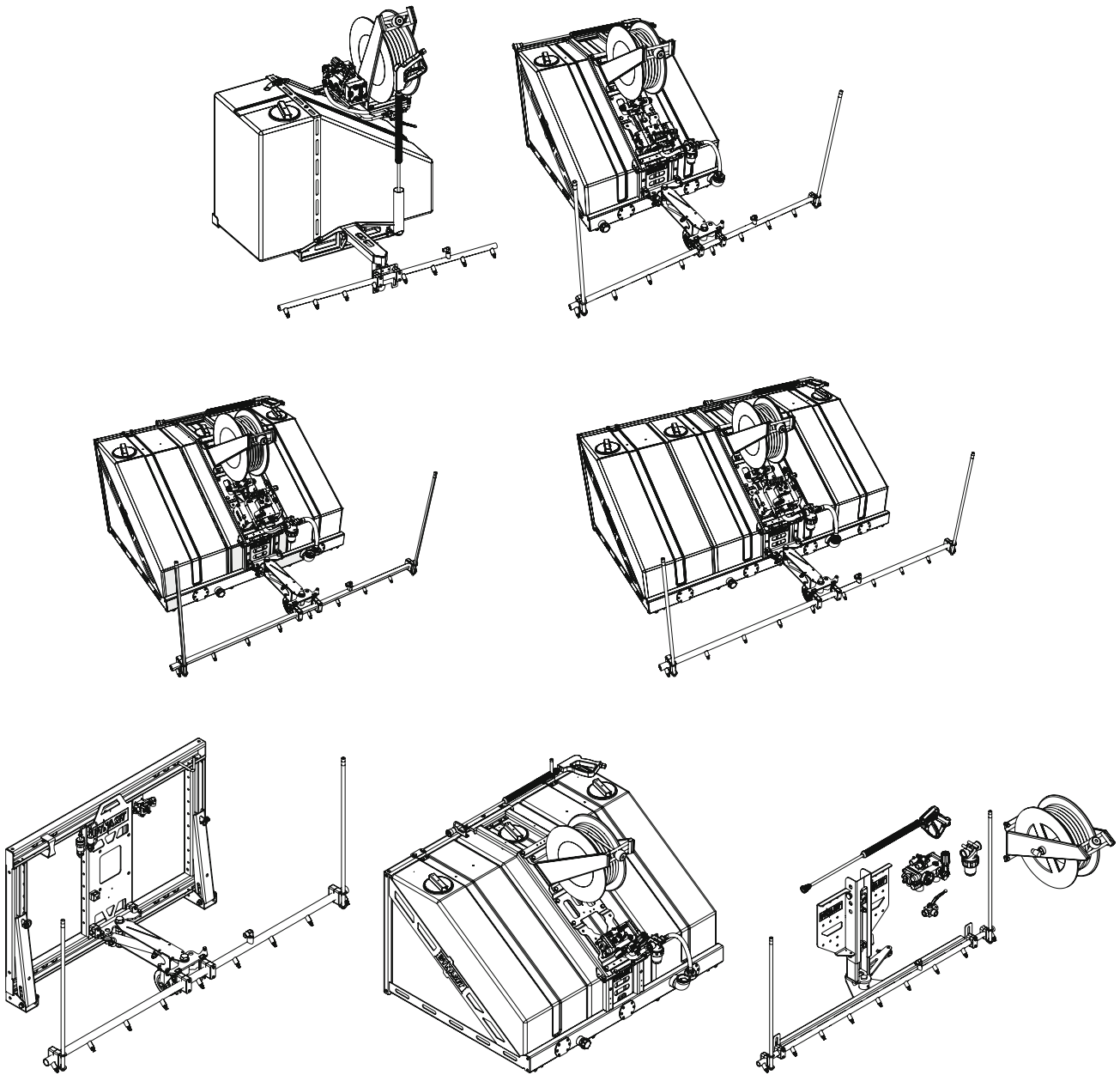


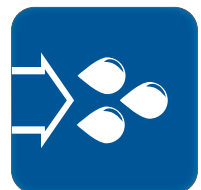
# DYNASET

POWERED BY HYDRAULICS



06/20  
rev 1.2

## QUICK GUIDE HIGH PRESSURE STREET WASHING UNITS



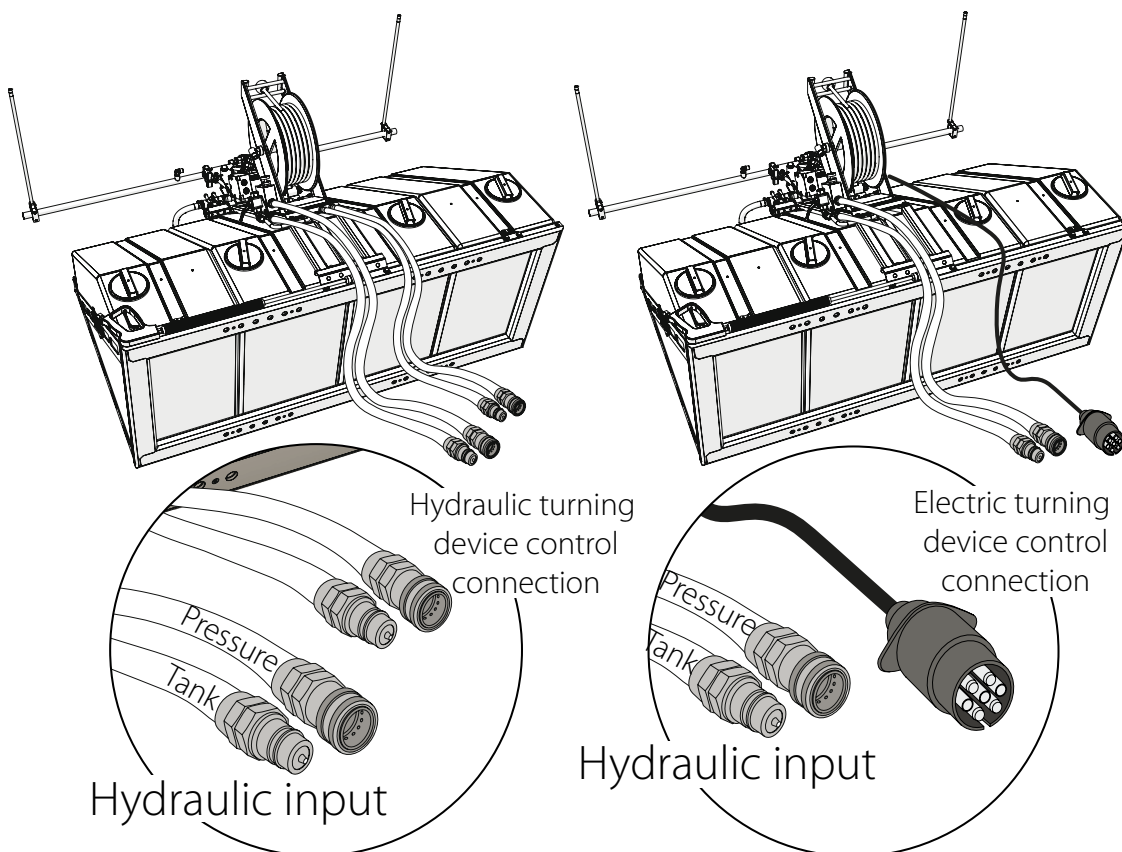
KPL

KPL-F

KPL-R

KPL-TRUCK

## CONNECTIONS



MODEL	PRESSURE LINE		RETURN LINE		TURNING DEVICE CONTROL	
	P	T	HYDRAULIC (1)	ELECTRIC (2)		
KPL S 250	1/2" ISO - A	1/2" ISO - A	-	-		
KPL M 250	1/2" ISO - A	1/2" ISO - A	1/2" ISO - A	ISO 1724		
KPL L 250	1/2" ISO - A	1/2" ISO - A	1/2" ISO - A	ISO 1724		
KPL L 220	3/4" TEMA 7500	3/4" TEMA 7500	1/2" ISO - A	ISO 1724		
KPL XL 220	3/4" TEMA 7500	3/4" TEMA 7500	1/2" ISO - A	ISO 1724		
KPL XL 180	3/4" TEMA 7500	3/4" TEMA 7500	1/2" ISO - A	ISO 1724		
KPL F 1650x9x6501	-	-	1/2" ISO - A	-		
KPL F 2200x10x65015	-	-	1/2" ISO - A	-		
KPL F 1850x9x65015	-	-	1/2" ISO - A	-		
KPL F 2200x10x6503	-	-	1/2" ISO - A	-		
KPL F HPW250	1/2" ISO - A	1/2" ISO - A	-	-		
KPL F HPW220	3/4" TEMA 7500	3/4" TEMA 7500	-	-		
KPL F HPW90	3/4" TEMA 7500	3/4" TEMA 7500	-	-		
KPL F HPW180	3/4" TEMA 7500	3/4" TEMA 7500	-	-		
KPL R M 250	1/2" ISO - A	1/2" ISO - A	-	-		
KPL R L 250	1/2" ISO - A	1/2" ISO - A	-	-		
KPL R XL 250	1/2" ISO - A	1/2" ISO - A	-	-		
KPL R L 220	3/4" TEMA 7500	3/4" TEMA 7500	-	-		
KPL R XL 220	3/4" TEMA 7500	3/4" TEMA 7500	-	-		
KPL R XL 180	3/4" TEMA 7500	3/4" TEMA 7500	-	-		

## BASIC KPL MODELS

		KPL S 250	KPL M 250	KPL L 250	KPL L 220	KPL XL 220	KPL XL 180
<b>WATER POWER</b>							
Water output max.	l/min (gpm)	30 (7.92)	30 (7.92)	30 (7.92)	50 (13.20)	50 (13.20)	90 (23.78)
Pressure max.	bar (psi)	250 (3600)	250 (3600)	250 (3600)	220 (3191)	220 (3191)	180 (2611)
Working width	cm (in)	150 (59.1)	180 (70.9)	180 (70.9)	200 (78.7)	250 (98.4)	250 (98.4)
Water tank	l (gal)	270 (71.32)	540 (142.65)	810 (213.98)	810 (213.98)	1080(285.30)	1080 (285.30)
Water filter size		R3/4"	R3/4"	R3/4"	R1"	R1"	R1 1/4"
Water filter mesh		80 or better					
<b>WASHING PIPE</b>							
Turning device control (M) Manual / (H) Hydraulic / (E) Electric *		M	H / E	H / E	H / E	H / E	H / E
Washing pipe width	mm (in)	1250 (49.2)	1650 (65.0)	1650 (65.0)	1850 (72.8)	2200 (86.6)	2200 (86.6)
Washing nozzles		8	9	9	9	10	10
<b>WATER PISTOL</b>							
Water pistol hose diameter		3/8"					
Water pistol hose length	m (feet)	20m (65.6)					
Water pistol		ST2300-SW-800-2508					
<b>HYDRAULIC POWER REQUIREMENTS</b>							
Oil flow max.	l/min (gpm)	40 (10.56)	40 (10.56)	40 (10.56)	70 (18.49)	70 (18.49)	115 (30.38)
Pressure max.	bar (psi)	210 (3046)					
<b>HYDRAULIC FLUID REQUIREMENTS</b>							
Viscosity	cSt	10-200 / optimum 25-35					
Temperature **	° C (° F)	max. 70 (158)					
Filter ratio	µm	25 or better					
Cooling capacity requirement	kW	2	2	2	3	3	6

## KPL-F

		KPL-F-1650x9x 6501	KPL-F-2200x10x 65015	KPL-F-1850x9x 65015	KPL-F-2200x10x 6503
<b>WATER POWER</b>					
Suitable KPL-F pump units***		HPW250	HPW220	HPW180	HPW90
<b>WASHING PIPE</b>					
Turning device control		Hydraulic			
Washing pipe width	mm (in)	1650 (65.0)	2200 (86.6)	1850 (72.8)	2200 (86.6)
Washing nozzles		9	10	9	10
<b>WATER PISTOL</b>					
Water pistol hose diameter		3/8"			
Water pistol hose length	m (feet)	20m (65.6)			
Water pistol		ST2300-SW-800-2508			

Galtons are U.S. liquid gallons

\* Electric turning device control available in 12VDC and 24VDC

\*\* Depending on hydraulic fluid. Read more from User Manual chapter 6.2 "Hydraulic fluids".

\*\*\* Check the KPL-F Pump setup choices on the next table

## KPL-F OPTIONAL PUMP UNITS

		KPL F HPW250	KPL F HPW220	KPL F HPW90	KPL F HPW180
<b>WATER POWER</b>					
Water output max.	l/min (gpm)	30 (7.92)	50 (13.20)	150(39.6)	90 (23.78)
Pressure max.	bar (psi)	250(3600)	220 (3191)	90(1300)	180 (2611)
Water filter size		R3/4"	R1"	R1 1/2"	R1 1/4"
Water filter mesh		80 or better			
<b>WATER PISTOL</b>					
Water pistol hose diameter		3/8"			
Water pistol hose length	m (feet)	20m (65.6)			
Water pistol		ST2300-SW-800-2508			
<b>HYDRAULIC POWER REQUIREMENTS</b>					
Oil flow max.	l/min (gpm)	40 (10.56)	70 (18.49)	85 (22.5)	115 (30.38)
Pressure max.	bar (psi)	210 (3046)			
<b>HYDRAULIC FLUID REQUIREMENTS</b>					
Viscosity	cSt	10-200 / optimum 25-35			
Temperature *	° C (° F)	max. 70 (158)			
Filter ratio	µm	25 or better			
Cooling capacity requirement	kW	2	2	4	6

## KPL-R

		KPL- R-M-250	KPL- R-L-250	KPL-R- XL-250	KPL- R-L-220	KPL-R- XL-220	KPL-R- XL-90	KPL-R- XL-180
<b>WATER POWER</b>								
Water output max.	l/min (gpm)	30 (7.92)	30 (7.92)	30 (7.92)	50 (13.20)	50 (13.20)	150 (39.6)	90 (23.78)
Pressure max.	bar (psi)	200 (2900)	200 (2900)	200 (2900)	220 (3191)	220 (3191)	90 (1300)	180 (2611)
Water tank	l (gal)	270 (71.32)	540 (142.65)	810 (213.98)	810 (213.98)	1080 (285.30)	1080 (285.30)	1080 (285.30)
Water filter size		R3/4"	R3/4"	R3/4"	R1"	R1"	R1 1/2"	R1 1/4"
Water filter mesh		80 or better						
<b>WATER PISTOL</b>								
Water pistol hose diameter		3/8"						
Water pistol hose length	m (feet)	20m (65.6)						
Water pistol		ST2300-SW-800-2508						
<b>HYDRAULIC POWER REQUIREMENTS</b>								
Oil flow max.	l/min (gpm)	40 (10.56)	40 (10.56)	40 (10.56)	70 (18.49)	70 (18.49)	85(22.5)	115 (30.38)
Pressure max.	bar (psi)	210 (3046)						
<b>HYDRAULIC FLUID REQUIREMENTS</b>								
Viscosity	cSt	10-200 / optimum 25-35						
Temperature *	° C (° F)	max. 70 (158)						
Filter ratio	µm	25 or better						
Cooling capacity requirement	kW	2	2	2	3	3	4	6

Gallons are U.S. liquid gallons

\* Depending on hydraulic fluid. Read more from User Manual chapter 6.2 "Hydraulic fluids".

# KPL-TRUCK

		KPL-TRUCK 250 - 1650x9	KPL-TRUCK 220 - 2200x10	KPL-TRUCK 90- 2200x10	KPL-TRUCK 180 - 2200x10
<b>WATER POWER</b>					
Water output max.	l/min (gpm)	30 (7.92)	50 (13.20)	150 (39.6)	90 (23.78)
Pressure max.	bar (psi)	250 (3600)	220 (3191)	90 (1300)	180 (2611)
Working width	cm (in)	180 (70.9)	250 (98.4)	250 (98.4)	250 (98.4)
Water filter size		R3/4"	R1"	R1 1/2"	R1 1/4"
Water filter mesh		80 or better			
<b>WASHING PIPE</b>					
Turning device control		Hydraulic			
Washing pipe width	mm (in)	1650 (64.96)	2200 (86.61)	2200 (86.61)	2200 (86.61)
Washing nozzles		9	10	10	10
<b>WATER PISTOL</b>					
Water pistol hose diameter		3/8"			
Water pistol hose length	m (feet)	20m (65.6)			
Water pistol		ST2300-SW-800-2508			
<b>HYDRAULIC POWER REQUIREMENTS</b>					
Oil flow max.	l/min (gpm)	40 (10.56)	40 (10.56)	70 (18.49)	40 (10.56)
Pressure max.	bar (psi)	210 (3046)			
<b>HYDRAULIC FLUID REQUIREMENTS</b>					
Viscosity	cSt	10-200 / optimum 25-35			
Temperature *	° C (° F)	max. 70 (158)			
Filter ratio	µm	25 or better			
Cooling capacity requirement	kW	2	3	4	6

Gallons are U.S. liquid gallons

\* Depending on hydraulic fluid. Read more from User Manual chapter 6.2 "Hydraulic fluids".

## WARNINGS

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### **ATTENTION!**

Operator and maintenance personnel must act in compliance with the laws, regulations and recommendations issued by the local work safety authorities.

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### **ATTENTION!**

All installations and maintenance should only be performed by experienced personnel. Hydraulic system of the base machine should be maintained according to the machine's own service program.

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### **ATTENTION!**

High Pressure water and oil. Do not point or aim at people they can cause severe injuries.

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Condition of your equipment are to be kept under constant observation. All couplings, valves and hoses are to be kept tight and clean. Leaks in the hydraulic system must be repaired immediately to avoid injuries caused by high pressure and oil blowouts.

The base machine must be stopped and the hydraulic circuit be depressurized prior to maintenance. **Make sure that the system can not start accidentally.**

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### **ATTENTION!**

Risk of burns! Parts of the unit and hydraulic oil can be hotter that 80°C!

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### **ATTENTION!**

Do not exceed the maximum pressure, temperature or load!

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### **ATTENTION!**

Always detach KPL unit on to a firm and level surface for storage. Always storage in a way that the unit cant fall or cause damage.

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### **ATTENTION!**

Always make sure that the KPL unit is properly coupled to the mobile machine. Dropping the KPL can damage the unit and cause injury if falling on people.

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### **ATTENTION!**

Prevent nozzles, water circuit and pipeline from freezing. Draining and air flushing of the water circuit have to performed before ambient temperature reaches 0°C or lower. Frozen water can cause permanent damage to the unit.

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### **ATTENTION!**

KPL unit can propel small rocks and objects to its surrounding. Make sure that no people is in close range when using the street washing head.

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### **ATTENTION!**

When using the KPL units, do not leave fingers or anything else between the washing pipe, support legs and frame.

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When working with KPL high pressure street washing unit or accessories, wear appropriate protective clothing, safety goggles, gloves, ear protection.

Warning labels are included with each main product.

Product recipient is obligated to place warning labels on the DYNASET product. Attach labels to visible and appropriate place onto or close to DYNASET product where it's easily seen. Clean surface with solvent detergent before attaching labels.



READ OPERATING  
INSTRUCTIONS!



USE EAR PROTECTION  
AND SAFETY GOGGLES!



HIGH PRESSURE  
OIL AND WATER!



HOT SURFACE!



KEEP FROM  
FREEZING!

## DECLARATION OF CONFORMITY

We hereby declare that the design and manufacture of the product stated below are in conformity with the provisions of the European Parliament and Councils on the harmonization of the laws of Member States on the safety of machines.

**Machine directive 2006/42/EC**

**LVD directive 2014/35/EU**

**EMC directive 2014/30/EC**

**RoHS directive 2015/863**

Applied conformity standards:

**CEN EN ISO 4413: EN ISO 4413:2010** Hydraulic fluid power -  
General rules and safety requirements for systems and their components.

**EN60204-1** Safety of machinery – Electrical equipment of machines.

Manufacturer: **DYNASET Oy**  
Menotie 3, FI-33470 Ylöjärvi, Finland

Product group: HIGH PRESSURE WATER PUMPS

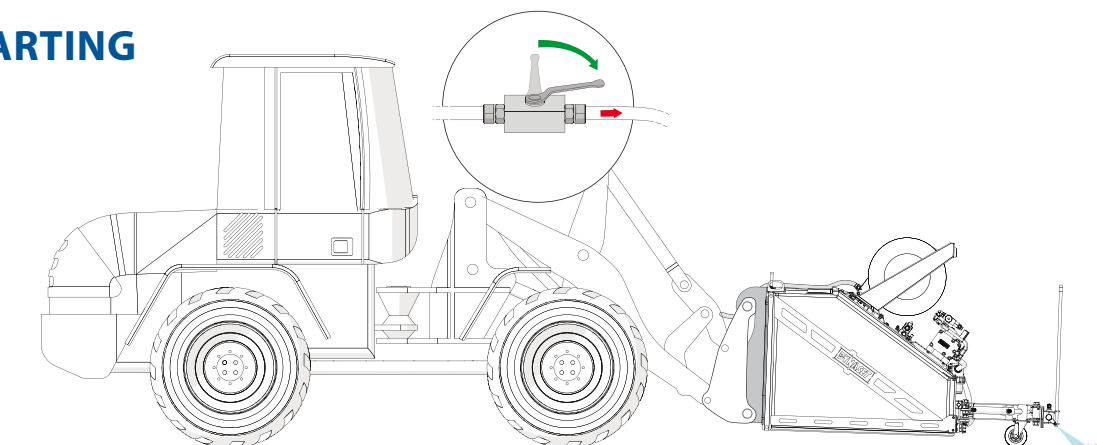
Product: KPL High pressure street washing units

If the device has been modified by someone other than the manufacturer or without the manufacturer's permission, this declaration is not valid.



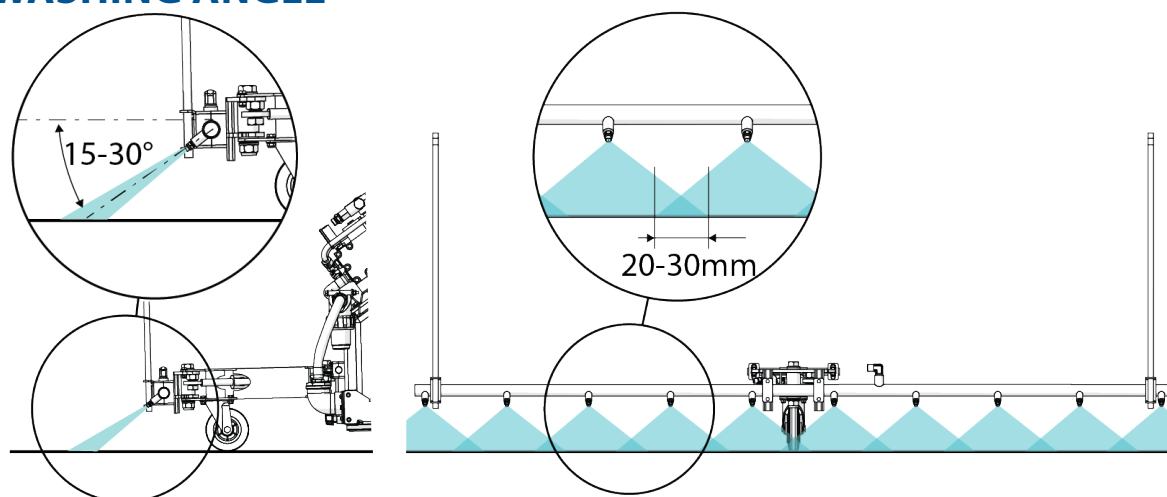
Timo Nieminen  
R&D Manager  
Menotie 3, FI-33470  
Ylöjärvi, Finland 01.07.2019

## STARTING



To start the KPL unit turn on the hydraulic flow to the KPL unit.

## WASHING ANGLE



Washing angle should be 15-30 degree and the height of washing pipe should be positioned so that the water jets cross each other 20-30 mm before hitting ground.



### ATTENTION!

Wrong positioning of the washing pipe can cause washing power loss up to 50 %.

READ THE DETAILED SAFETY, OPERATING AND INSTALLATION INSTRUCTIONS FROM THE USER MANUAL!



Download the full user manual  
[www.dynaset.com](http://www.dynaset.com)

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