

# Drive Solutions for Sprayers.

Linde Hydraulics

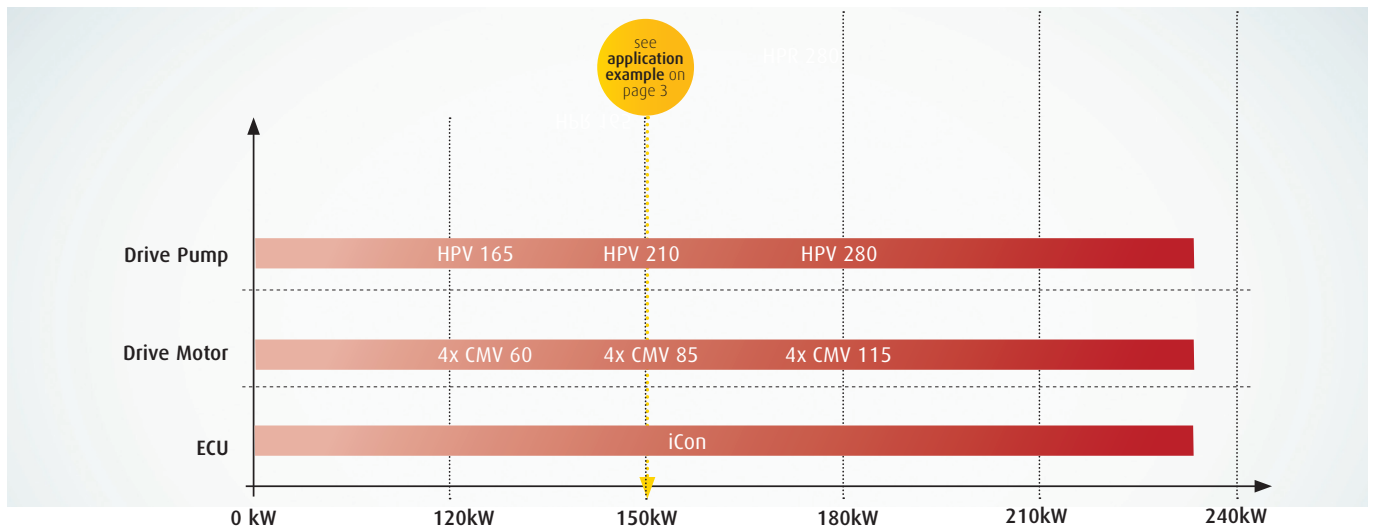
*Linde*



# Sprayer Solutions. Our Portfolio.

By the logic combination of individual products that perfectly complement each other we offer solutions for almost every class of

machines. Due to these capabilities we can always offer the best possible system to our customers.

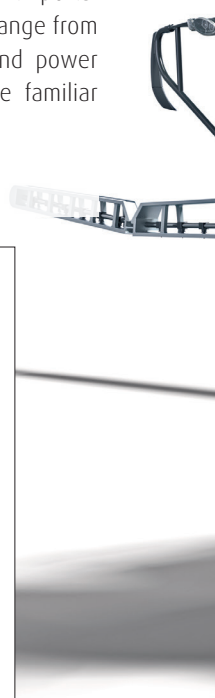
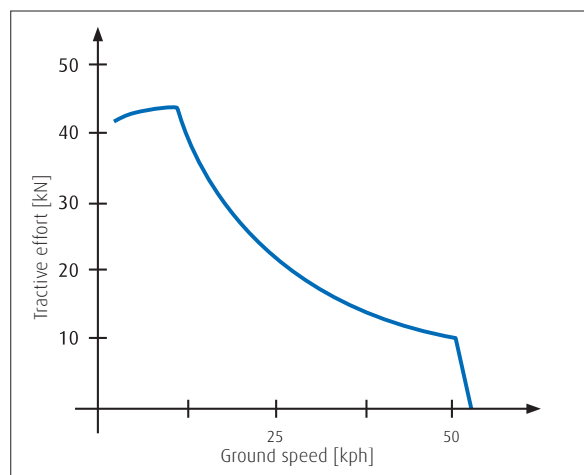
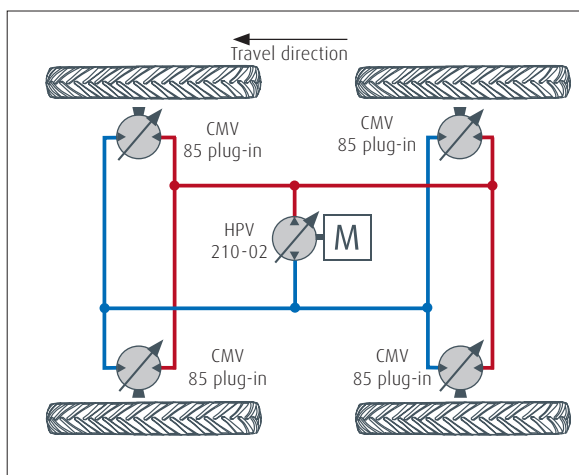


Application of fertiliser, plant protection agents or just plain water. Self-propelled sprayers are well established in agriculture. Not just in regions where several harvests are gathered during the year and sowing machines follow directly in line behind harvesting machines – in Europe too, they help to make the most of time-frames.

The use of hydraulic drives permits great freedom in configuring the machine so as to achieve uniform weight distribution across all the tyres. This helps to minimise the pressure on the ground and the compacting vibrations. Hydrostatic systems from Linde ensure that the machine always travels exactly in accordance with the position of the accelerator, irrespective of the quantity remaining in the tank and of the steepness and difficulty of the terrain. The sprayer travels completely evenly, and the spraying result is uniform across the entire field.

The example shows a machine with a contemporary design, featuring a large high-pressure pump and individual wheel motors. This configuration allows for a more creative machine design and allows for variable ground clearance depending on the application. Moreover, this configuration does not require a manual gearbox and offers a high level of tractive effort and high top speeds for the road. Separate control of the individual motors enables the drive power of the individual wheels to be adapted to changing load and traction conditions.

Other control systems and designs, for instance layouts with portal axes or PTO motor, are also available. The wide product range from Linde Hydraulics allows machines of different sizes and power classes to be optimally equipped – all with the same familiar operating controls.



# Application Example.

## Sprayer, 155 kW.

### Equipment

- A** 1x HPV 210-02 E2 (drive pump)
- B** 4x CMV 85 E6 plug-in (drive motor)
- C** 1x iCon (electronic control unit)

### Advantages

- Hydraulic drive permits even pressure on the ground and considerable ground clearance
- Adjustment of the drive power at changed load situations
- Load-independent machine response
- Uniform spraying result

### Options

- Portal axle instead of single wheel drives



# Technical Data Summary.


## Find the right product for your application.

VARIABLE PUMPS FOR CLOSED CIRCUIT OPERATION								
HPV-02		55	75	105	135	165	210	280
Max. displacement	cc/rev	54.7	75.9	105	135.7	165.6	210.1	281.9
Max. operating speed	rpm	3900	3400	3200	3000	2750	2300	2400
Max. speed (intermittent)	rpm	4150	3600	3400	3200	2950	2500	2550
Nominal pressure	bar	450	450	450	450	450	450	450
Peak pressure (intermittent)	bar	500	500	500	500	500	500	500
Torque ( $\Delta p=430$ bar, charge pressure=20 bar)	Nm	374	519	719	929	1133	1438	1929
Corner Power (theor.) ( $V_{max} \times n_{max} \times \Delta p$ 430 bar)	kW	153	185	241	292	326	346	485
Weight (w/H1 control)	kg	46	49	66	72	113	132	164

**PRODUCT ADVANTAGES**

**HPV-02**

- compact design
- high power density
- dynamic response
- high reliability
- long service life
- noise-optimized
- precise and load-independent




VARIABLE DISPLACEMENT MOTORS FOR CLOSED AND OPEN CIRCUITS								
CMV		60	85	115	140	170	215	
Max. displacement	cc/rev	60	85	115	140	170	215	
Max. operating speed at $V_{max}$	rpm	4450	3900	3550	3350	3100	2900	
Max. speed (intermittent) at $V_{min}$	rpm	7200	6800	6150	5800	4900	4600	
Nominal pressure	bar	450	450	450	450	450	450	
Peak pressure (intermittent)	bar	500	500	500	500	500	500	
Output torque ( $\Delta p=430$ bar and $V_{max}$ )	Nm	411	582	787	958	1163	1471	
Corner power ( $V_{max} \times n_{max}$ at $V_{min} \times \Delta p$ 430 bar)	kW	191	238	293	336	378	447	
Weight	kg	27.7	36.3	44.8	59.2	62.1	76.4	

**PRODUCT ADVANTAGES**

**CMV**

- high power density
- high speeds
- low windage losses
- standardized interfaces
- high external load
- standard and plug-in version



Site at development stage  
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