HÜDIG®

Iromat I-V

Our Experience – Your Success

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HÜDIG Iromat I-V

HÜDIG irrigation machines impress by a sophisticated technique and durable construction elements. There are irrigation machines made by HÜDIG in operation which have been reliably serving for more than 40 years already.

The machines are used for agricultural irrigation, in wastewater associations and also for dust binding in surface mining industry. 3500 operation hours per year are not unusual.

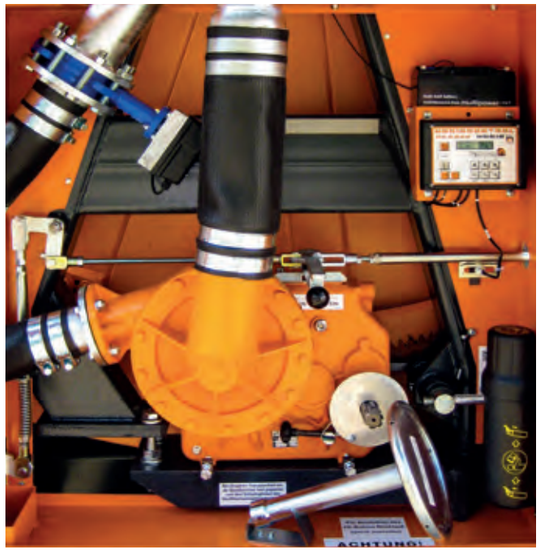
1 concept = 5 machine sizes

Central control unit

All essential control elements, the electrical supply as well as the drive unit are located together in the operation centre behind a lockable large hood. Each of the elements is clearly arranged and positioned freely accessible.
The drive unit is a non-clog turbine with a directly adapted gear box. This combination convinces by a high efficiency level. In general, this configuration stands out for a high level of operation comfort and for easy maintenance.

Electronic feed-in control

An essential demand on a modern irrigation machine is to allow constant irrigation intensity with simple handling. This is perfectly ensured by the electronic feed-in control by HÜDIG.
An initial and final irrigation period meeting to the actual conditions can be programmed intuitively from



1 to max. 250 minutes and up t 8 sections can be irrigated individually. Feed-in speeds of 5 – 200 m/h are possible, depending on water provision circumstances. The speed of the PE pipe feed-in is measured wear-free by a sensor via an aluminium disc. Moreover, many additional options can be controlled by HüdigControl (e.g. a close-area sprinkler with time function, an automatic START resp. STOP time function etc.).

GSM module

Optionally, the electronic feed-in control can be equipped with a GSM module. This allows a status request which gives information about current feed-in speed, status of feed-in and the expected finishing of irrigation. Furthermore, SMS reports can be sent respectively received in the event of a failure and about finalization of irrigation if requested. Starting respectively stopping of the irrigation cycle is also possible, same as modification of individual irrigation parameters like e.g. feed-in speed, initial irrigation time, final irrigation time.

Chassis

The chassis of HÜDIG irrigation machines are adjustable for different track gauges (see technical data). For IROMAT II the chassis can be supplied with swivel **tandem axle** on request. IROMAT III, IV and V are serially equipped with such an axle.
Uneven road or terrain surfaces are comfortably levelled by the tandem axle which significantly increases driving safety.
Optionally, for shunting on one axle there is a **pendulum locking** available. By using this locking, crop damage is reduced to a minimum when turning around in cultivated fields. All IROMATs are available with a pneumatic brake. The IROMAT V is equipped with a pneumatic brake as standard.

Strong components of HÜDIG GmbH & Co. KG

drum bearing

electronic feed-in control

tandem axle IROMAT II

chassis IROMAT V with applied brake

pendulum locking for tandem axle

Hydraulic support legs
IROMATs are serially equipped with hydraulic support legs at rear side. As an option, the support leg at front side can also be executed with hydraulic lifting.

Swivel head
Upon request the IROMATs I–IV can be equipped with a swivel head. Swivelling is done manually.

The drum can be swivelled by 145° to both sides. A **hydraulic swivel head adjustment** can be supplied as accessory for each machine type.

Automatic sprinkler trolley take-up
Working hours cost money – and money is tight. That is one reason for our concept of sprinkler trolley lifting.

At the end of irrigation cycle the sprinkler trolley automatically couples on (the necessary energy is taken from the water volume flow needed for irrigation). After finalization of irrigation, the rear supports are manually retracted via the oil hydraulic. This comfort reduces the set-up times to a minimum.

Sprinkler trolley
The sprinkler trolley developed by HÜDIG has an extraordinary directional stability, even in uneven areas. A robust and wear-free level compensation prevents descending of the large-area sprinkler at the end of the irrigation process.
For directional stable pulling-out of the hose in the tractor lane with a narrow tractor linkage drawbar, a comfortable centred towing device is available.
For high-growing cultures, e.g. corn, a **corn sprinkler trolley** can be used optionally.

Large-area sprinkler
Each IROMAT is serially equipped with a Komet large-area sprinkler (for sizes please refer to technical data sheet). Upon request, other large-area sprinklers from Komet delivery program or from other manufacturers can be supplied.

active pendulum locking

hydraulic support legs at rear side (standard)

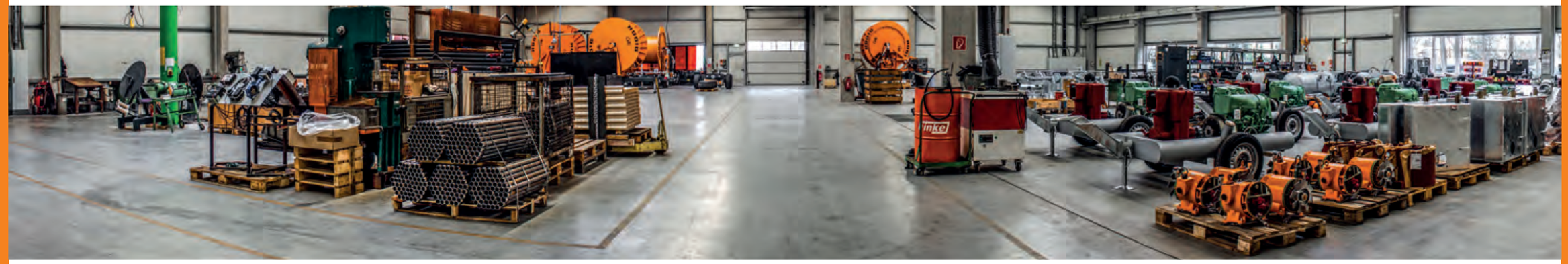
hydraulic support leg at front side (as option)

automatic sprinkler trolley take-up

large-area sprinkler made by Komet

5-wheel sprinkler skid

Subtleties in detail



Coupling
Moving of the irrigation machine with towing coupling or with tractor linkage drawbar – both is possible with the HÜDIG coupling combination. This HÜDIG coupling combination which is equipped with a standard towing eye allows on the one hand side comfortable road transport with towing coupling and on the other hand side a quick shifting of the machine on the field with the tractor linkage drawbar.

Hose storage
Where to put the hose? During transport the hoses or moulded parts can be put into the hose store, embedded in the chassis. For inlet hoses an integrated swivelling inlet hose reel can be ordered additionally.

PE pipe guidance
HÜDIG uses quality PE pipe as per DIN EN 12324-1/2. One result of the extraordinary PE pipe quality is its durability. To make sure that this requirement is also guaranteed with harsh operating conditions, HÜDIG puts increased emphasis on careful and safe PE pipe guidance.

For example, the pipe is guided over rolls in the area of the drum outlet. Even PE pipe with larger diameter can be laid down easily in the track by using the fully-hydraulic controllable pipe guidance (available as accessory).

Solar panel
Electric energy is needed for the electronic and the drive of the actuator motors. The solar panel works independently from the mains and energy supply is assured for the whole irrigation season. Optionally, a big 88Ah battery is available.

Accessories
Individual equipments and supplements around irrigation technique can be complemented from the HÜDIG program which is oriented especially towards agriculture. These include pumps, pump aggregates, generators, quick coupling pipes, moulded parts, hoses, large-area sprinklers, nozzle trolley, large-area irrigation systems (center pivots and linear systems) and hose reels for up to 700 m flat hose.

Strong components of HÜDIG GmbH & Co. KG

In case you need further information please do not hesitate to contact us. The specification for the construction of HÜDIG irrigation machines must be formulated by the user. The constructive realization is done in HÜDIG's construction and development department. Key criteria for investment decision are, besides reliable operating mode, a simple handling and short set-up times.

coupling

supply hose reel

hose store

PE pipe guidance

solar panel

Irrigation machines in full size

Iromat I

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
5.100	2.400	3.350	1.500 - 2.000	2.085 kg
Ground clearance mm			Tires	
470			260/70-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
90 x 6,7		1,75 without water		At 440 m Length = 768 kg
		6,39 with water		At 440 m Length = 2.795 kg
100 x 7,4		2,14 without water		At 400 m Length = 857 kg
		7,84 with water		At 400 m Length = 3.137 kg
110 x 8,2		2,61 without waterr		At 300 m Length = 783 kg
		9,49 with water		At 300 m Length = 2.846 kg

Iromat II RED

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
5.800	2.750	3.500	1.500 - 2.000	2.630 kg
Ground clearance mm			Tires	
600			11,5/80-15.3 AW 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
110 x 8,2		2,61 without water		At 400 m Length = 1.044 kg
		9,49 with water		At 400 m Length = 3.796 kg

Iromat II FLAT

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
5.350	2.740	3.660	2.000	2.680 kg
Ground clearance mm			Tires	
370			15.00/55-17 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
110 x 10-8,2		2,82 without water		At 500 m Length = 1.408 kg
		9,49 with water		At 500 m Length = 4.745 kg

Iromat II Tandem

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
5.800	2.750	3.700	1.500/1.800/2.000	2.735 kg
Ground clearance mm			Tires	
485			260/70-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
100 x 11,4-9,1-7,4		2,31 without water		At 550 m Length = 1.268 kg
		7,84 with water		At 550 m Length = 4.313 kg
110 x 10-8,2		2,82 without water		At 500 m Length = 1.408 kg
		9,49 with water		At 500 m Length = 4.745 kg
120 x 9,0		3,12 without water		At 370 m Length = 1.155 kg
		11,29 with water		At 370 m Length = 4.179 kg

Iromat II S

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
5.800	2.750	3.750	1.500/1.800/2.000	2.755 kg
Ground clearance mm			Tires	
485			260/70-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
120 x 11-9,0		3,23 without water		At 420 m Length = 1.355 kg
		11,29 with water		At 420 m Length = 4.743 kg

Iromat III

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
6.250	2.890	4.000	1.800/2.000/2.250	3.380 kg
Ground clearance mm			Tires	
465			260/70-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
110 x 12,3-10,0-8,2		2,89 without water		At 600 m Length = 1.735 kg
		9,49 with water		At 600 m Length = 5.693 kg
120 x 12,3-11,0-9,0		3,33 without water		At 550 m Length = 1.831 kg
		11,29 with water		At 550 m Length = 6.211 kg
125 x 11,4-9,3		3,5 without water		At 500 m Length = 1.750 kg
		12,25 with water		At 500 m Length = 6.127 kg

Iromat III RED

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
6.250	2.890	3.780	1.800/2.000/2.250	3.200 kg
Ground clearance mm			Tires	
465			260/70-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
120 x 12,3-11,0-9,0		3,31 without water		At 510 m Length = 1.688 kg
		11,30 with water		At 510 m Length = 5.765 kg

Iromat IV RED

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
6.750	3.000	4.100	1.800/2.000/2.250	3.971 kg
Ground clearance mm			Tires	
500			11,5/80-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
120 x 13,5-11,0-9,0		3,42 without water		At 600 m Length = 2.051 kg
		11,29 with water		At 600 m Length = 6.776 kg

Iromat IV

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
6.750	3.000	4.320	1.800/2.000/2.250	4.254 kg
Ground clearance mm			Tires	
500			11,5/80-15.3 AW, 14 PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
125 x 14,0		4,86 without water		At 700 m Length = 3.400 kg
		12,25 with water		At 700 m Length = 8.573 kg
125 x 15,6-14,0-11,4		4,29 without water		At 700 m Length = 3.005 kg
		12,25 with water		At 700 m Length = 8.575 kg
140 x 13,0-10,4		4,45 without water		At 530 m Length = 2.356 kg
		15,37 with water		At 530 m Length = 8.147 kg

Iromat V

Length[1] mm	Width mm	Height mm	Track width mm	Weight empty without PE pipe
6.540	3.000	4.300	2.250	5.910 kg
Ground clearance mm			Tires	
630			15.00/55-17 AW, 18PR	
PE pipe mm		Weight kg/m		Weight of PE pipe
125 x 15,6-14,0-11,4		4,48 without water		At 840 m Length = 3.766 kg
		12,25 with water		At 840 m Length = 10.289 kg

Overview and technical data of large - area sprinklers

Nozzle diameter	mm	14	16	18	20	22	23	24	25	26	28	30	32	34	36	38	40	42	
Nozzle pressure	**bar**										**3,0**								
Water consumption	m^3/h	13,0	16,9	21,4	26,5	31,9	35,0	38,0	41,5	44,9	51,8	59,5	68,2	76,5	86,8	97,0	106,6	117,5	
Sprinkler throw distance Usable irrigation width = 2 x Sprinkler throw distance - 15 % for overlapping and drift	m	31,6	33,7	35,9	38,2	39,1	39,4	39,9	40,5	41,0	42,1								TWIN 101 ULTRA
			35,5	37,6	39,7	40,8	41,3	41,8	41,9	42,1	42,3	42,6	42,9	43,3					TWIN 140 ULTRA
				37,8	39,9	41,0	41,5	42,0	42,2	42,3	42,5	42,8	43,2	43,5	43,8	44,1			TWIN 160 ULTRA
						41,5	42,0	42,6	42,7	42,9	43,1	43,5	43,8	44,1	44,4	44,7	45,1	45,4	TWIN 202 ULTRA
Nozzle pressure	**bar**										**4,0**								
Water consumption	m^3/h	15,1	19,5	24,7	30,7	36,9	40,4	43,9	47,9	51,8	59,8	68,7	78,8	88,3	100,2	112,0	123,1	135,7	
Sprinkler throw distance Usable irrigation width = 2 x Sprinkler throw distance - 15 % for overlapping and drift	m	35,1	37,3	39,9	42,5	44,2	45,0	45,8	46,8	47,8	49,7								TWIN 101 ULTRA
			37,5	39,7	41,8	43,8	44,8	45,7	46,8	47,8	50,0	51,3	52,7	54,6					TWIN 140 ULTRA
				41,0	43,2	45,3	46,3	47,3	48,3	49,5	51,7	53,1	54,5	56,5	58,3	60,2			TWIN 160 ULTRA
						45,7	46,7	47,7	48,9	49,9	52,1	53,6	55,0	57,0	58,9	60,7	61,8	63,1	TWIN 202 ULTRA
Nozzle pressure	**bar**										**5,0**								
Water consumption	m^3/h	16,8	21,8	27,6	34,3	41,2	45,2	49,1	53,6	58,0	66,9	76,8	88,1	98,7	112,0	125,2	137,6	151,7	
Sprinkler throw distance Usable irrigation width = 2 x Sprinkler throw distance - 15 % for overlapping and drift	m	37,3	39,8	42,5	45,2	47,3	48,2	49,3	50,5	51,8	54,3								TWIN 101 ULTRA
			40,0	42,6	45,1	47,3	48,4	49,5	51,4	52,1	54,6	56,9	59,3	61,3					TWIN 140 ULTRA
				43,6	46,2	48,5	49,6	50,8	52,1	53,4	55,9	58,3	60,8	62,8	64,9	67,0			TWIN 160 ULTRA
						48,7	50,0	51,0	52,3	53,6	56,2	58,6	61,1	63,1	65,2	67,3	68,8	70,5	TWIN 202 ULTRA

Subject to technical modifications and changes in scope of supply!
1) length without sprinkler trolley

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