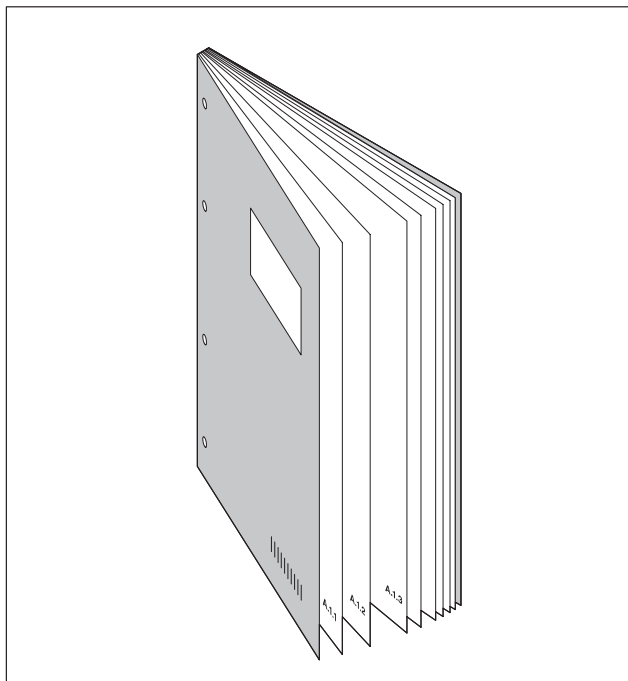


1 Preface

1.1 Notes for the reader

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Fig. 1

Contents

This documentation provides you with information on the versions, specifications and technical characteristics of the Heidelberg Quickmaster DI 46-4 and the corresponding peripheral equipment.

Target group

This documentation is relevant if you

- think of buying a printing press of this model line;
- plan the installation of and location for a printing press of this model line.

Abbreviations used

Fig. = Figure
D.S. = Drive side
O.S. = Operator's side
PU = Printing unit

Topicality

The information provided in this manual corresponds to the series version of the press at the time of publication of this document. We reserve the right to make changes in accordance with the progress of modern technology.

Should you have any questions, please contact your Heidelberg agency.

Note on protection

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Fig. 2

I.2

Quickmaster DI 46–4

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1 Quickmaster DI 46-4

1.1 Print-related specifications

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Printing press		
Sheet sizes	Largest sheet	460 x 340 mm (18.11 x 13.39 in)
	Smallest sheet	89 x 140 mm (3.50 x 5.51 in)
	Largest print format	450 x 330 mm (17.72 x 13.00 in)
	Paper bite	10 ± 1 mm (0.39 ± 0.039 in)
	Printing material thickness	0.05 – 0.3 mm (0.0020 – 0.012 in)
Press speed	Maximum	10000 sheets/h
	Minimum	3500 sheets/h
	Crawl speed	500 rph
Printing unit	Quantity	4 (satellite structure)
	Print cylinder, diameter	720 mm (28.35 in)
Printing plates	Carrier material	Polyester
	Sheet size	505 x 340 mm (19.88 x 13.39 in)
	Thickness	0.18 mm (0.0071 in)
	Plate cylinder undercut	0.035 mm (0.0014)
	Plate dispenser, contents	Plates for 35 print jobs
Blankets	Sheet size, reinforced	555 x 337 mm (21.85 x 13.27 in)
	Thickness	1.95 mm (0.077 in)
	Blanket cylinder undercut	2.3 mm (0.091 in)
Underlay sheets	Sheet size	473 x 340 mm (18.62 x 13.39 in)
Inking unit	Total number of rollers	12
	Form rollers	3
	Diameter	54.7; 45; 50 mm (2.15, 1.77, 1.97 in)
	Ink zones	12
Pile heights, net	Feeder	900 mm (35.43 in)
	Delivery	460 mm (18.11 in)
Pile heights, gross ⁽¹⁾	Feeder	980 mm (38.58 in)
	Delivery	540 mm (21.26 in)
Maximum pile weight	Feeder	200 kg (440 lbs)
	Delivery	100 kg (220 lbs)
Operating conditions	Recommended ambient temperature	20 – 25° C (68 – 77° F)
	Recommended relative humidity	50 ± 5%

Printing press		
Noise emission	Feeder center	77 dB(A)
	Control console on feeder	75 dB(A)
	Delivery center	77 dB(A)
	Basis	DIN 45635, Sheet 27
Dissipated heat		According to power requirement

Tab. 1

(¹): including pile carriage.

1.2 Dimensions

Printing press	Length [m] ([ft])	Width [m] ([ft])	Height [m] ([ft])
QM DI 46-4	3,18 (10.43)	2,76 (9.06)	1,90 (6.23)

Tab. 2

Total height with the protection grid open:
2.20 m (7.22 ft).

1.3 Space requirements

Space requirements			
Printing press	Length [m] ([ft])	Width [m] ([ft])	Floor space [m ²] ([sq ft])
QM DI 46-4, without add-ons (¹)	2.96 (9.71)	0.95 (3.12)	2.81 (30.3)
QM DI 46-4, complete	3.18 (10.43)	2.76 (9.06)	8.78 (94.5)

Tab. 3

Minimum working space required (²)			
Printing press	Length [m] ([ft])	Width [m] ([ft])	Floor space [m ²] ([sq ft])
QM DI 46-4	5.25 (17.22)	4.75 (15.58)	24.94 (268.5)

Tab. 4

(¹): Add-ons: control cabinet incl. main control panel, control console on the feeder, foot step with tray, substructure units (e.g.: temperature control unit).

(²): including all necessary surfaces.

1.4 Press weights and floor load

Printing press	Press weight		Average statistic floor load ⁽³⁾ [N/m ²] ([lbf/sq ft])
	without pile [kg] ([lbs])	incl. 2 piles ⁽²⁾ [kg] ([lbs])	
QM DI 46-4, without add-ons ⁽¹⁾	3870 (8530)	4085 (9010)	14260 (297.89)
QM DI 46-4, complete	4850 (10690)	5065 (11170)	5660 (118.24)

Tab. 5

Maximum static compressive load per unit area: 120 N/cm² (174 lbf/sq in).

This is the highest load that occurs on the bearing areas – check the load bearing capacity of the floor!

Dynamic load ratio: < 3 %.

⁽¹⁾: Add-ons: control cabinet incl. main control panel, foot step with tray, substructure units (e.g.: temperature control unit).

⁽²⁾: Calculating the pile weight at a paper density of 1 kg/dm³ (0.036 lbs/cu in).

⁽³⁾: Ratio resulting from: press weight incl. 2 piles divided by floor space required.

1.5 Air supply

When the air is supplied by customer equipment, proper and expert adaptation to the existing units is necessary. The following connections are necessary:

Air connection		
Blast air (feeder)	Operating pressure ⁽¹⁾	1.6 bar abs.(23.21 psi)
	Delivered quantity ⁽²⁾	15 m ³ /h (530 cu ft/h)
Vacuum (feeder)	Operating pressure	0.5 bar abs.(7.25 psi)
	Delivered quantity	15 m ³ /h (530 cu ft/h)
Compressed air ⁽³⁾	Operating pressure	8.0 bar abs.(116 psi)
	Delivered quantity	60 l/min (3660 cu in/min)

Tab. 6

⁽¹⁾: Operating pressure, all data referring to 0 bar (0 psi) (absolute pressure).

⁽²⁾: Delivered quantity, all data referring to atmospheric pressure (1013 mbar, 0° C (32° F)).

⁽³⁾: Conditioned compressed air: cool, dry, unoled, dust-free and condensate-free according to the following reference values:

Reference values for compressed air		
Temperature	Maximum	5° C (41° F) at ambient temperature
Water contents	Maximum, at 7 bar (102 psi)	5.95 g/m ³ (2.60 gr/cu ft)
Residual oil contents	Maximum	1 mg/m ³ (0.0004 gr/cu ft)
Particle size	Maximum	5 µm (0.2 mil)
Particle contents	Maximum	5 mg/m ³ (0.0022 gr/cu ft)

Tab. 7

1.6 Electrical power requirements of the printing press without IR dryer

Printing press	Energy demand 50/60 Hz [kW]	Power factor cosφ	Mains connection voltages	Electrical fusing
			3 AC [V]	[A]
QM DI 46-4	14,8	0,8	200	80
			220, 230, 240	63
			350, 380, 400	40
			415, 440, 480	32
			600	25

Tab. 8

1.7 Electrical power requirements of the printing press with IR dryer

Printing press	Energy demand 50/60 Hz [kW]	Power factor cosφ	Mains connection voltages	Electrical fusing
			3 AC [V]	[A]
QM DI 46-4	16,0	0,8	200, 220	80
			230	63
			350	50
			380, 400, 415	40
			440	32
			600	25

Tab. 9

Using the IR dryer "DryStar Ink compact" is not possible with country-specific voltages of 240 V or 480 V.

1.8 Raster Image Processor (RIP) and Direct Imaging (DI)

Raster image processor (RIP)		
Total weight	Net	approximately 35 kg (77 lbs)
Floor space (e.g. computer table)	Width	0.70 m (2.30 ft)
	Depth	0.75 m (2.46 ft)
	Surface	0.53 m ² (5.71 sq ft)
Energy demand	50 /60 Hz	max. 0.9 kW
Electrical fusing	115, 200, 220, 230, 240 V	16 A
Ambient conditions	Temperature	up to 938 m (3080 ft) above 0: 10 – 35° C (50 – 95° F)
		as of 938 m (3080 ft) above 0: 10 – 32° C (50 – 87° F)
	Relative humidity	max. 80% at 35° C (95° F)
	Location	Dry and dust-free
Network connection	Digital Prepress → RIP	Ethernet 10 Mbps / 100 Mbps network card
	Transfer protocol	Apple Talk, TCP/IP
Direct imaging system (DI)		
DI controller	Operator control	Touch screen
	Resolution, 2 levels	1270 dpi / 2540 dpi
Imaging unit	Quantity	1 per printing unit
	Infrared laser diodes	16 per imaging unit (laser class 1)
Network connection	Network connection	Twisted pair (RJ 45)
	RIP → DI controller	Twisted pair cable length: 20 m (65.62 ft) category 5

Tab. 10

1.9 Accessories

CoolStar zeta.t 35		
Temperature control unit		
Dimensions	Length	650 mm (25.59 in)
	Width	800 mm (31.50 in)
	Height	430 mm (16.93 in)
Weight	Net	140 kg (309 lbs)
Power requirement (included in total power requirement, see Table 8 or 9)	50 Hz	2.5 kW
	60 Hz	3.0 kW
Waste heat	50 Hz	4.8 kW
	60 Hz	5.0 kW
Heating capacity	50 /60 Hz	1.2 kW
Cooling capacity	50 /60 Hz	3.5 kW
Cool air consumption	50 /60 Hz	2000 m ³ /h (70630 cu ft/h)
Noise emission	DIN 45635	≤ 70 dB(A)
Installation	Beneath the foot step	
Temperature control water compensating container		
Dimensions	Length	510 mm (20.01 in)
	Diameter	280 mm (11.02 in)
Container contents	Net	20 l (1220 cu in)
Installation	Beneath the foot step	

Tab. 11

DryStar Ink compact		
Radiator type	Infrared carbon radiator	
Power requirement (included in total power requirement, see Table 9)	50 /60 Hz	3.5 kW
Radiator output	4 x 0.75 kW	
Radiation spectrum	Medium-wave	
Ambient conditions	Temperature	10 – 45° C (50 – 113° F)
	Relative humidity	max. 90%

Tab. 12

1.10 Dispatch information

Dimensions				
Shipping unit	Length [m] (<i>ft</i>)	Width [m] (<i>ft</i>)	Height [m] (<i>ft</i>)	Volume [m³] (<i>cu ft</i>)
Printing press, without control cabinet	3.20 (10.50)	2.26 (7.41)	2.24 (7.35)	16.2 (572)
Control cabinet	2.20 (7.22)	1.38 (4.53)	1.62 (5.31)	4.9 (173)

Tab. 13

Weights			
Shipping unit	Net [kg] (<i>lbs</i>)	with pallet [kg] (<i>lbs</i>)	with crate [kg] (<i>lbs</i>)
Printing press, without control cabinet	4330 (9550)	4680 (10320)	4980 (10980)
Control cabinet	550 (1210)	630 (1390)	780 (1720)

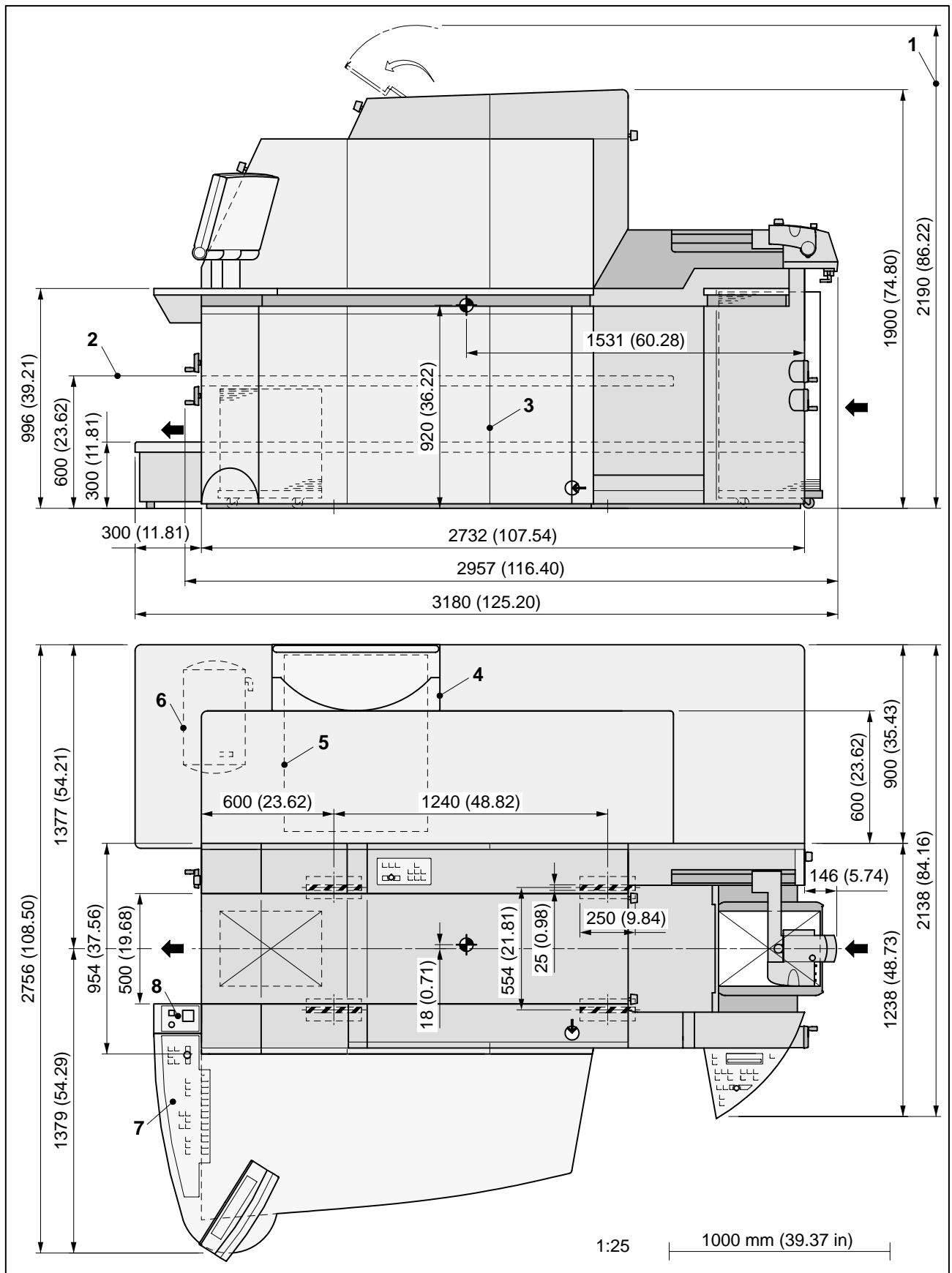
Tab. 14

Required installation opening in building		
Installation unit	Width [m] (<i>ft</i>)	Height [m] (<i>ft</i>)
With pallet	2,35 (7.71)	2,25 (7.38)
Without pallet	1,35 (4.43)	2,00 (6.56)

Tab. 15

All case dimensions and weights can deviate slightly.
 A shipping unit consists of an installation unit and a standard spare parts set (e.g. temperature stabilizer, roller, or foot steps).
 For overseas shipments only case packaging is used.

1.11 Floor plan



GR A4906110000002000

Fig. 1 QM DI 46-4

1.12 Floor plan legend

All dimensions in mm (*[in]*).

Scale of 1:25.

If you generate your own printouts, a true-to-scale representation cannot be guaranteed.

Numbering

- ① Total height with the protection grid open
- ② Height of top step on drive side
- ③ Control cabinet
- ④ Tray, height: 1856 mm (*73.07 in*)
- ⑤ CoolStar zeta.t 35
- ⑥ Temperature control water compensating container for CoolStar zeta.t 35
- ⑦ Main control panel
- ⑧ Dryer control panel

Symbols

- ◀ Pile loading and removal
- ⊙ Supply line for electrical energy
- ⊕ Center of gravity

Printing press without control cabinet and footsteps.

- ▨ Contact surfaces

