

Carrying capacities: 250 kg up to 100 t

Air pressure: 4 bar or 6 bar

Proven in practice: JDN Air Hoists **PROFI** Series are superior in all places where safety has priority. Unlike electric current, the compressed air power driving medium does not produce any ignition risk. This important advantage ensures JDN Air Hoists are especially suitable for applications in hazardous areas.

JDN Air Hoists **PROFI** Series are very robust and therefore suitable for tough industrial applications even in continuous working processes. According to your requirements there are various control systems available. For traversing loads there are also different trolley designs to meet your particular demands.

Where the JDN PROFI excellence has been proven

Aircraft construction, assembly lines, chemical industry, dairies, electro plating, explosives and pyrotechnics industry, food industry, foundries, furniture industry, glass industry, lacquer and varnish factories, match industry, mechanical engineering, auto industry, oil storage plants, on- and offshore, paint shops, paper industry, power plants, refineries, sawmills, shipyards, space industry, tempering plants, textile industry.

STANDARD FEATURES

- Suitable for application in hazardous areas
- Sensitive infinitely variable speed control for the precise positioning of loads
- Easy operation
- Suitable for lube-free operation
- Frequent switching and extended duty cycles
- Low maintenance
- Low headroom, lightweight
- Sound absorption
- Insensitive to dust, humidity and temperatures ranging from -20°C up to +70°C
- From 1t upwards with overload protection (EC-version)
- Low sound emissions

TECHNICAL DETAILS

- Fail-safe starting, low maintenance vane motor
- Chain sprocket in the mid section runs in dust-proof maintenance-free ball bearings
- Planetary gear box with long-life grease lubrication, all gears made of tempered or hardened high-grade steel
- Load chain and hooks manufactured from high quality tempered steels with a breaking strength of five times the nominal load

THE ADVANTAGES AT A GLANCE

Strong – Fast – Silent

High performance with more efficiency by reliability plus high lifting and lowering speeds. Low sound emissions.

High Level of Safety

Integrated emergency stop switch in the main air supply*
From 1 t upwards with overload protection.

Oil-Free Operation

Patented, permanent motor lubrication during operation, using a high-performance grease. No additional motor lubrication required.

Patented Motor-Brake System

For operation with low maintenance and little wear. Based on the proven design of the JDN Mini Series.

Modern Design – Compact Size


Features no protruding control hoses or parts susceptible to damage, making the new PROFI also suitable for horizontal pulling.

100 % Duty Rating – No Downtime

Suited For Application In Hazardous Areas

According to EC Directive on Hazardous Locations 94/9/EEC

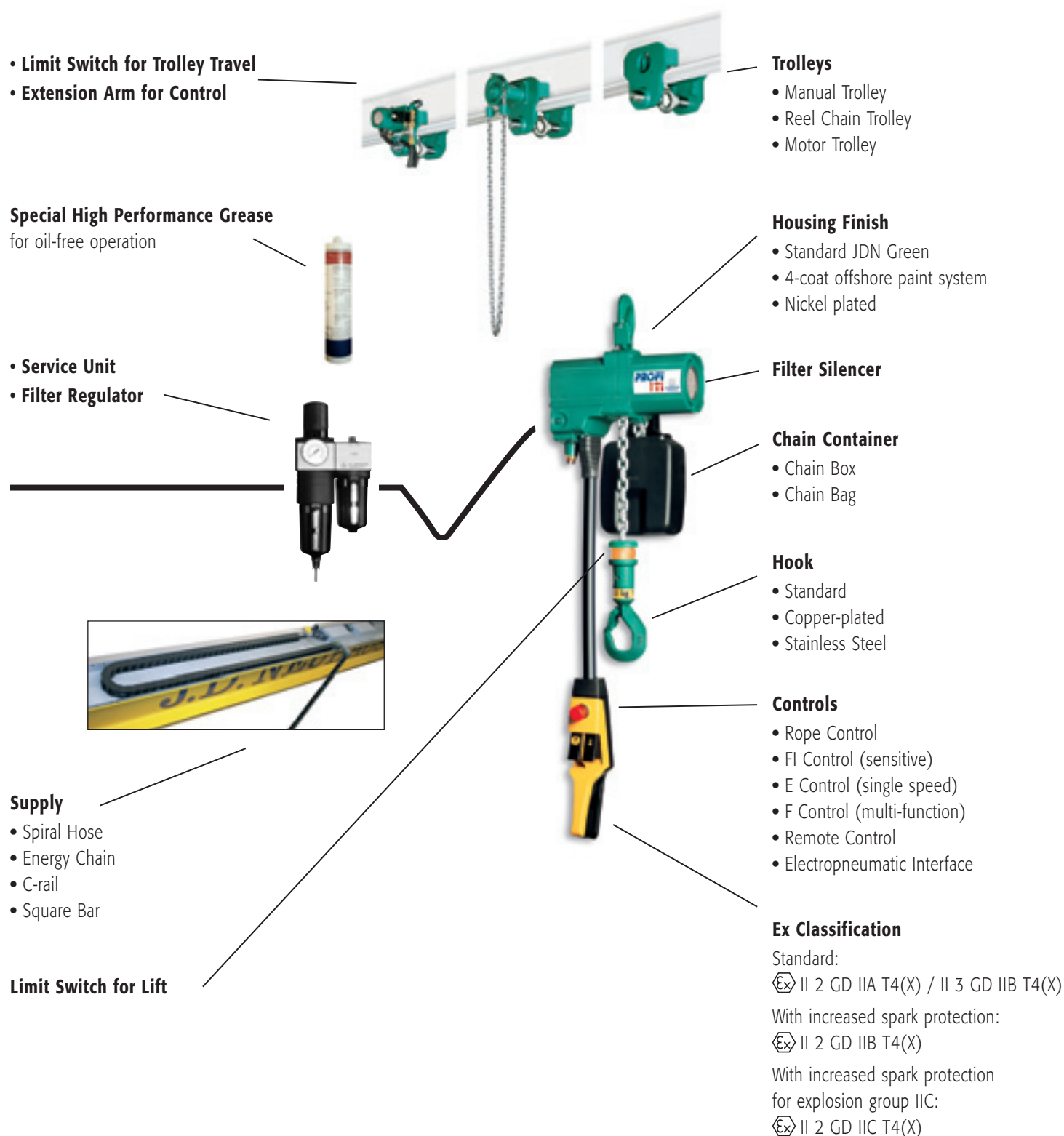
As standard:  II 2 GD IIA T4(X) / II 3 GD IIB T4(X)

With increased spark protection:  II 2 GD IIC T4(X)

*Up to PROFI 20 TI



The modular system at a glance



PROFI 025 TI - 2 TI

TECHNICAL DATA

Type		025 TI		05 TI		1 TI		1.5 TI		2 TI	
Air pressure	PSI bar	65 4	85 6	65 4	85 6	65 4	85 6	65 - 85 4 - 6	65 4	85 6	
Carrying capacity	mt	0.16	0.25	0.32	0.5	0.63	1	1.6	1.25	2	
Number of chain strands		1		1		1		1		2	
Motor output	kW	0.6	1	0.6	1	0.6	1	1.3 - 2	0.6	1	
Lifting speed at full load	ft/min m/min	65.6 20		32.8 10	36.1 11	16.4 5	18 5.5	27.6 - 32.8 8.4 - 10	8.2 2.5	8.9 2.7	
Lifting speed without load	ft/min m/min	123 37.5	137.8 42	52.5 16	62.3 19	32.8 10	36.1 11	13.1 - 19.7 4 - 6	16.4 5	18 5.5	
Lowering speed at full load	ft/min m/min	124.7 38		55.8 17		32.8 10	36.1 11	36.1 - 39.4 11 - 12	16.4 5	18 5.5	
Air consumption at full load - lifting	cfm m ³ /min	24.7 0.7	42.4 1.2	24.7 0.7	42.4 1.2	24.7 0.7	42.4 1.2	53 - 92 1.5 - 2.6	24.7 0.7	42.4 1.2	
Air consumption at full load - lowering	cfm m ³ /min	28.3 0.8	53 1.5	28.3 0.8	53 1.5	28.3 0.8	53 1.5	78 - 127 2.2 - 3.6	28.3 0.8	53 1.5	
Air connection		G 1/2		G 1/2		G 1/2		G 3/4	G 1/2		
Hose dimension (ø inside)	inch. mm	0.5 13		0.5 13		0.5 13		0.7 19	0.5 13		
Weight with standard lift height and control length	lbs kg	59.5 27		59.5 27		61.6 27.5	61.7 ¹ 28 ¹	123 56	75 ¹ 34 ¹		
Chain dimension	mm	7 x 21		7 x 21		7 x 21		9 x 27	7 x 21		
Weight of 1 m chain	lbs kg	2.2 1		2.2 1		2.2 1		1.2 1.8	2.2 1		
Standard lift	ft m	10 3		10 3		10 3		10 3	10 3		
Length of control at standard lift	ft m	6.5 2		6.5 2		6.5 2		6.5 2	6.5 2		
Noise level at full load ² - lifting	dB(A)	73	74	74	75	74	76	73 - 77	74	76	
Noise level at full load ² - lowering	dB(A)	77	78	77	78	77	78	78 - 80	77	78	

Group mechanism at 6 bar: PROFI 025 TI M5 (2m), PROFI 05 TI - PROFI 2 TI M4 (1Am)

¹ With overload protection ² Measured at 1 m distance acc. to DIN 45635 part 20

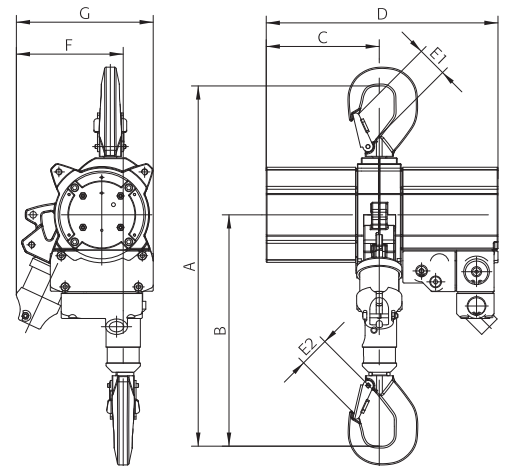


PROFI 1 TI

DIMENSIONS

Type		025 TI	05 TI	1 TI	1.5 TI	2 TI
A min. headroom ¹	inch. mm	17.7 450	17.7 450	17.7 450	18.9 480	19.6 498
B	inch. mm	11.3 288	11.3 288	11.3 288	11.5 293	13.2 336
C	inch. mm	5.7 145	5.7 145	5.7 145	7.9 200	5.7 145
D	inch. mm	11.7 297	11.7 297	11.7 297	16.2 412	11.7 297
E1	inch. mm	1.1 28	1.1 28	1.1 28	1.1 28	1.1 28
E2	inch. mm	1.1 28	1.1 28	1.1 28	1.0 26	1.1 28
F up to hook centre	inch. mm	5.4 137	5.4 137	5.4 137	6.7 170	5.4 137
G maximum width	inch. mm	6.9 176	6.9 176	6.9 176	8.5 215	7.2 183

¹ Chain containers increase the hoist headroom

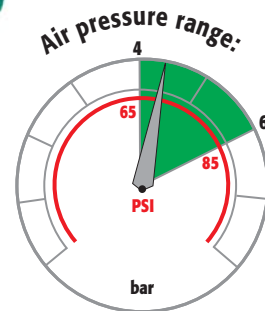


NEW

PROFI 1.5 TI and 3 TI/2

TECHNICAL DATA

Type		1.5 TI	3 TI/2
Air pressure range	PSI bar	65 - 85 4 - 6	65 - 85 4 - 6
Capacity	mt	1.6	3.2
Number of chain standards		1	2
Motor output	kW	1.3 - 2	1.3 - 2
Lifting speed without load	ft/min m/min	27.6 - 32.8 8.4 - 10	13.8 - 16.4 4.2 - 5
Lifting speed at full load	ft/min m/min	13.1 - 19.7 4 - 6	6.6 - 9.8 2 - 3
Lowering speed at full load	ft/min m/min	36.1 - 39.4 11 - 12	18.0 - 19.7 5.5 - 6
Air consumption at full load – lifting	cfm m ³ /min	53 - 92 1.5 - 2.6	53 - 92 1.5 - 2.6
Air consumption at full load – lowering	cfm m ³ /min	78 - 127 2.2 - 3.6	78 - 127 2.2 - 3.6
Air connection		G ³ / ₄	G ³ / ₄
Hose dimension (Ø inside)	inch. mm	0.7 19	0.7 19
Weight with standard lift height and control length	lbs kg	123 56	146 66
Chain dimension	mm	9 x 27	9 x 27
Weight of chain	lbs/ft kg/m	1.2 1.8	1.2 1.8
Standard lift	ft m	10 3	10 3
Length of control at standard lift	ft m	6.5 2	6.5 2
Noise level at full load ¹ - lifting	dB(A)	73 - 77	73 - 77
Noise level at full load ¹ - lowering	dB(A)	78 - 80	78 - 80

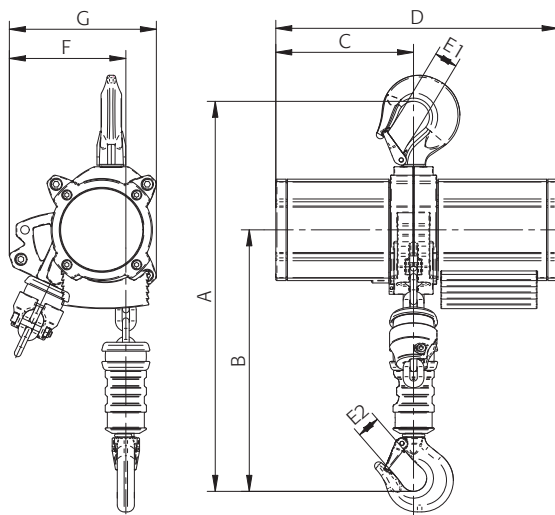


¹ Measured at 1 m distance acc. to DIN 45635 part 20

DIMENSIONS

Type		1.5 TI	3 TI/2
A min. headroom ¹	inch. mm	18.9 480	21.4 544
B	inch. mm	11.5 293	14.0 356
C	inch. mm	7.9 200	7.9 200
D	inch. mm	16.2 412	16.2 412
E1	inch. mm	1.1 28	1.1 28
E2	inch. mm	1.0 26	1.1 28
F up to hook centre	inch. mm	6.7 170	5.5 140
G maximum width	inch. mm	8.5 215	8.5 215

¹ Chain containers increase the hoist headroom



PROFI 3 TI - 20 TI

TECHNICAL DATA

Type		3 TI/2	3 TI		6 TI		10 TI		16 TI		20 TI	
Air pressure	PSI bar	65 - 85 4 - 6	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6	65 4	85 6
Capacity	mt	3.2	3.2		6.3		10		16		20	
Number of chain standards		2	1		2		2		3		4	
Motor output	kW	1.3 - 2	1.8	3.5	1.8	3.5	1.8	3.5	1.8	3.5	1.8	3.5
Lifting speed without load	ft/min m/min	13.8 - 16.4 4.2 - 5	19.7 6	32.8 10	9.8 3	16.4 5	6.6 2	10.5 3.2	4.3 1.3	6.6 2	3.3 1	4.6 1.4
Lifting speed at full load	ft/min m/min	6.6 - 9.8 2 - 3	8.2 2.5	16.4 5	3.9 1.2	8.2 2.5	2.6 0.8	5.2 1.6	1.6 0.5	3.3 1	1.3 0.4	2.3 0.7
Lowering speed at full load	ft/min m/min	18.0 - 19.7 5.5 - 6	24.6 7.5	35.4 10.8	11.8 3.6	17.7 5.4	8.2 2.5	11.2 3.4	5.3 1.6	6.9 2.1	3.9 1.2	5.3 1.6
Air consumption at full load – lifting	cfm m ³ /min	53 - 92 1.5 - 2.6	71 2	142 4	71 2	142 4	71 2	142 4	71 2	142 4	71 2	142 4
Air consumption at full load – lowering	cfm m ³ /min	78 - 127 2.2 - 3.6	124 3.5	195 5.5	124 3.5	195 5.5	124 3.5	195 5.5	124 3.5	195 5.5	124 3.5	195 5.5
Air connection		G 3/4	G 3/4		G 3/4		G 3/4		G 3/4		G 3/4	
Hose dimension (Ø inside)	inch. mm	0.7 19	0.7 19		0.7 19		0.7 19		0.7 19		0.7 19	
Weight with standard lift height and control length	lbs kg	146 66	189.6 86		242.5 110		343.9 156		529.1 240		627 285	
Chain dimension	mm	9 x 27	13 x 36		13 x 36		16 x 45		16 x 45		16 x 45	
Weight of chain	lbs/ft kg/m	1.2 1.8	2.6 3.8		2.6 3.8		3.9 5.8		3.9 5.8		3.9 5.8	
Standard lift	ft m	10 3	10 3		10 3		10 3		10 3		10 3	
Length of control at standard lift	ft m	6.5 2	6.5 2		6.5 2		6.5 2		6.5 2		6.5 2	
Noise level at full load ¹ - lifting	dB(A)	73 - 77	74	78	74	78	74	78	74	78	74	78
Noise level at full load ¹ - lowering	dB(A)	78 - 80	79	80	79	80	79	80	79	80	79	80

Group mechanism at 6bar: M3 (1Bm)

¹ Measured at 1 m distance acc. to DIN 45635 part 20

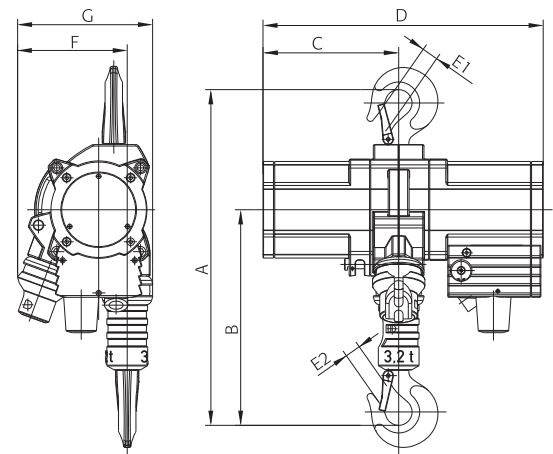


PROFI 6 TI

DIMENSIONS

Type		3 TI/2	3 TI	6 TI	10 TI	16 TI	20 TI
A min. headroom ¹	inch. mm	21.4 544	23.3 593	26.5 674	32 813	35.4 898	40.6 1030
B	inch. mm	14.0 356	14.7 373	17.9 454	21.6 548	23.5 598	26.4 670
C	inch. mm	7.9 200	9.2 233	9.2 233	12.1 308	15 382	15 382
D	inch. mm	16.2 412	19 483	19 483	22.6 575	27.2 692	27.2 692
E1	inch. mm	1.1 28	1.6 40	1.6 40	1.7 44	2.1 53	3 75
E2	inch. mm	1.1 28	1.2 30	1.6 40	1.7 44	2.1 53	3 75
F up to hook centre	inch. mm	5.5 140	7.4 187	6.1 154	7.8 197	7.8 199	7.1 180
G maximum width	inch. mm	8.5 215	9.2 233	9.2 233	12 306	12.1 308	12.4 315

¹ Chain containers increase the hoist headroom



PROFI 25 TI - 100 TI

TECHNICAL DATA

Type		25 TI	37 TI		50 TI		100 TI
Air pressure	PSI	85	65	85	65	85	85
	bar	6	4	6	4	6	6
Capacity	mt	25	37.5		50		100
Number of chain standards		2	3		4		4
Motor output	kW	6	4	6	4	6	10
Lifting speed without load	ft/min	7.5	1.1	3.6	2.3	4.3	2.3
	m/min	2.3	1.1	1.6	0.7	1.3	0.7
Lifting speed at full load	ft/min	3.6	1.3	2.1	1.1	0.9	1.1
	m/min	1.1	0.4	0.7	0.3	0.5	0.4
Lowering speed at full load	ft/min	6.2	3.3	4.9	2.9	4.6	2.6
	m/min	1.9	1.0	1.5	0.9	1.4	0.8
Air consumption at full load - lifting	cfm	194.8	166.4	194.8	166.4	194.8	389.5
	m ³ /min	5.5	4.7	5.5	4.7	5.5	11
Air consumption at full load - lowering	cfm	230	194.8	230	198.2	230	424.9
	m ³ /min	6.5	5.5	6.5	5.6	6.5	12
Air connection		G1	G1		G1		G 1 1/2
Hose dimension (Ø inside)	inch.	1.0	1.0		1.0		1.4
	mm	25	25		25		35
Weight with standard lift height and control length	lbs	1098	1936		1885		5423
	kg	498	880		855		2460
Chain dimension	mm	23.5 x 66		23.5 x 66		32 x 90	
Weight of 1 m (3.28 ft) chain	lbs/ft	8.2	8.2		8.2		14.3
	kg/m	12.2	12.2		12.2		21.3
Standard lift	ft	10	10		10		10
	m	3	3		3		3
Length of control at standard lift	ft	6.5	6.5		6.5		6.5
	m	2	2		2		2
Noise level at full load ¹ - lifting	dB(A)	83	77	83	77	83	88
Noise level at full load ¹ - lowering	dB(A)	83	79	83	79	83	89



PROFI 100 TI

Group mechanism at 6 bar: PROFI 25 TI - PROFI 50 TI M3 (1 Bm), PROFI 100 TI M2 (1 Cm)

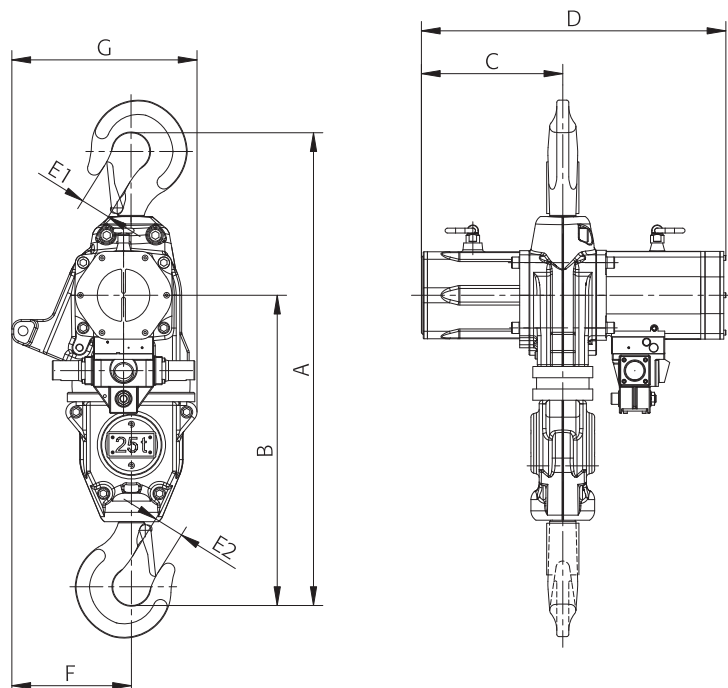
Versions with 4 bar for PROFI 25 TI and PROFI 100 TI on request.

¹ Measured at 1 m distance acc. to DIN 45635 part 20

DIMENSIONS

Type		25 TI	37 TI	50 TI	100 TI
A min. headroom ¹	inch.	49.6	55.2	67	86.6
	mm	1260	1400	1700	2200
B	inch.	32.6	34.3	45	58.1
	mm	827	869	1144	1475
C	inch.	14.8	14.8	18.2	28.9
	mm	377	377	463	734
D	inch.	32	32	38.6	59.3
	mm	812	812	980	1505
E1	inch.	2.9	4.05	4.1	4.7
	mm	75	103	103	120
E2	inch.	2.9	4.05	4.1	4.7
	mm	75	103	103	120
F up to hook centre	inch.	12.6	20.4	12.2	17.3
	mm	318	518	310	440
G maximum width	inch.	19.2	29.4	21.2	30.2
	mm	488	745	539	767

¹ Chain containers increase the hoist headroom



J.D. NEUHAUS
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