

## Rugged, Reliable, Versatile. From 550 Lbs. to 100 Ton Capacity, Air pressure: 85 PSI (6 Bar)

Proven in practice, the JDN **PROFI** Series air hoists excel in places where safety is paramount. Unlike electricity, compressed air does not generate sparks, making the JDN **PROFI** Series the hoist of choice in hazardous areas. The highest quality materials, coupled with six generations of experience result in a product that is second-to-none. The **PROFI** is available with rope or push-button control.

### ■ FEATURES

- Overload protection standard on the 3 - 20 TI series
- Rugged construction, minimum headroom
- Small and handy relative to its capacity
- Simple design means low maintenance cost
- Impervious to dust, vapors, humidity and temperatures
- Unlimited switching and operation frequency
- Explosion proof
- Variable speed control
- Positive start system ensures a smooth start and consistent operation

### ■ OPTIONS

- Spark-resistant package
- Chain container
- Delta P Overload for 1/4 to 2 ton TI series and 25 TI series up
- Offshore paint
- Food Expy Print
- Limit switches

### ■ APPLICATIONS

- Chemical industry
- Assembly lines
- Electro-plating
- Pyrotechnical industry
- Glass industry
- Paint shops
- Textile industry
- Automotive industry
- Paper mills
- Shipyards
- Oil industry
- Aircraft industry
- Refineries
- Power plants
- Food industry
- Space industry

### ■ THE ADVANTAGES AT A GLANCE

#### ⇒ WITH SAFETY IN MIND

ISO and QM controlled in-house manufacturing for continuous highest quality and safety.

Intuitive fail-proof design and safe operation features.

#### ⇒ GREATER EFFICIENCY

Due to higher lifting speeds.

Driving mechanism classification M4 (1 Am) up to M5 (2 m) i.e. 800 - 1600 hours at full load. Also suitable for horizontal pulling due to the compact construction. Lifting and lowering speeds can be regulated sensitively.

#### ⇒ OIL-FREE OPERATION

Due to patented, permanent motor lubrication during operation, using a high-performance grease. (Refer to operation manual for grease maintenance schedule.)

#### ⇒ PATENTED MOTOR-BRAKE SYSTEM

For low-maintenance and low-wear operation, based on the proven systems in the JDN ranges, mini and PROFIL 0.25 TI up to 20 TI.

#### ⇒ PATENTED AIR MOTOR DESIGN

#### ⇒ 100% DUTY RATING – NO DOWNTIME

#### ⇒ Ex Classification according to EC Directive on Hazardous Locations 94/9/EEC (ATEX 100a)

Standard version:

⊕ II 2 GD IIA T4(X) / II 3 GD IIB T4(X)

With increased spark protection:

⊕ II 2 GD IIC T4(X)



## The modular system at a glance

### Limit Switch For Trolley Travel Extension Arm For Control



### Trolleys

- Plain Trolley
- Geared Trolley
- Motor Trolley

### Special High Performance Grease Necessary for oilfree operation



### Housing Coating

- Standard
- 4-fold Coating (offshore)

### Service Unit

- Filter
- Regulator
- Lubricator



### Filter Silencer

### Optional Limit Switch

### Chain Container

- Chain Box
- Chain Bag

### Hook

- Standard
- Copper-plated
- Stainless Steel



### • Supply

- Spiral Hose
- Energy Chain
- C-Shaped Rail
- Square Bar

### Overtravel Protection

device using JDN buffer system



### Controls

- Rope Control
- FI Control (sensitive)
- E Control (single speed)
- F Control (multi-function)
- Remote Control
- Electropneumatic Interface

### Ex Classification

Standard:

⊕ II 2 GD IIA T4(X) / II 3 GD IIB T4(X)

With increased spark protection:

⊕ II 2 GD IIB T4(X)

With increased spark protection  
for explosion group IIC:

⊕ II 2 GD IIC T4(X)

## PROFI 025 TI - 2 TI

### TECHNICAL DATA

Type		025 TI	05 TI	1 TI	2 TI
Air pressure	PSI	85	85	85	85
	Bar	6	6	6	6
Carrying capacity	t	0.25	0.5	1	2
Number of chain strands		1	1	1	2
Engine output	kW	1	1	1	1
Lifting speed at full load	ft/min	65.6	36.1	18	8.9
	m/min	20	11	5.5	2.7
Lifting speed without load	ft/min	137.8	62.3	36.1	18
	m/min	42	19	11	5.5
Lowering speed at full load	ft/min	124.7	55.8	36.1	18
	m/min	38	17	11	5.5
Air consumption at full load - lifting	cfm	42.4	42.4	42.4	42.4
	m <sup>3</sup> /min	1.2	1.2	1.2	1.2
Air consumption at full load - lowering	cfm	53	53	53	53
	m <sup>3</sup> /min	1.5	1.5	1.5	1.5
Air connection		G 1/2	G 1/2	G 1/2	G 1/2
Hose dimension (ø inside)	inch.	0.5	0.5	0.5	0.5
	mm	13	13	13	13
Weight at standard lift, rope control	lbs	59.5	59.5	61.7	75
	kg	27	27	28 <sup>1</sup>	34 <sup>1</sup>
Chain dimension	mm	7 x 21	7 x 21	7 x 21	7 x 21
Weight of 1 m chain	lbs	2.2	2.2	2.2	2.2
	kg	1	1	1	1
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
Sound level at full load <sup>2</sup> - lifting	dB(A)	74	75	76	76
Sound level at full load <sup>2</sup> - lowering	dB(A)	78	78	78	78

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

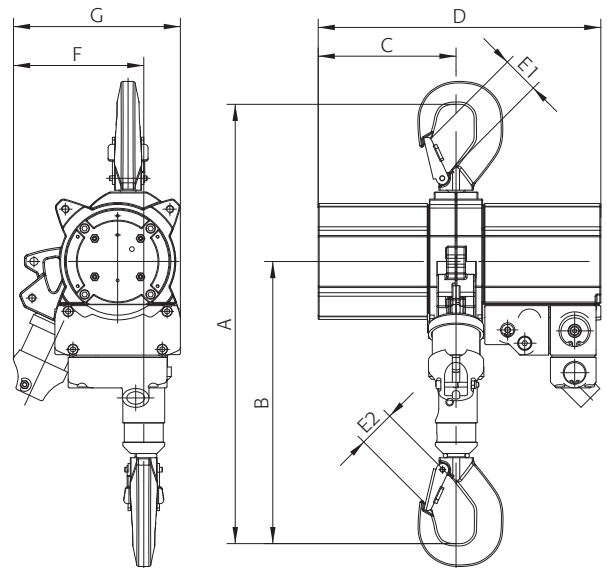


PROFI 1 TI

### DIMENSIONS

Type		025 TI	05 TI	1 TI	2 TI
A min. headroom <sup>1</sup>	inch.	17.7	17.7	17.7	19.6
	mm	450	450	450	498
B	inch.	11.3	11.3	11.3	13.2
	mm	288	288	288	336
C	inch.	5.7	5.7	5.7	5.7
	mm	145	145	145	145
D	inch.	11.7	11.7	11.7	11.7
	mm	297	297	297	297
E1	inch.	1.1	1.1	1.1	1.1
	mm	28	28	28	28
E2	inch.	1.1	1.1	1.1	1.1
	mm	28	28	28	28
F up to hook center	inch.	5.4	5.4	5.4	5.4
	mm	137	137	137	137
G maximum width	inch.	6.9	6.9	6.9	7.2
	mm	176	176	176	183

<sup>1</sup> Chain containers increase the headroom



**NEW**

## PROFI 1.5 TI and 3 TI/2

### TECHNICAL DATA

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

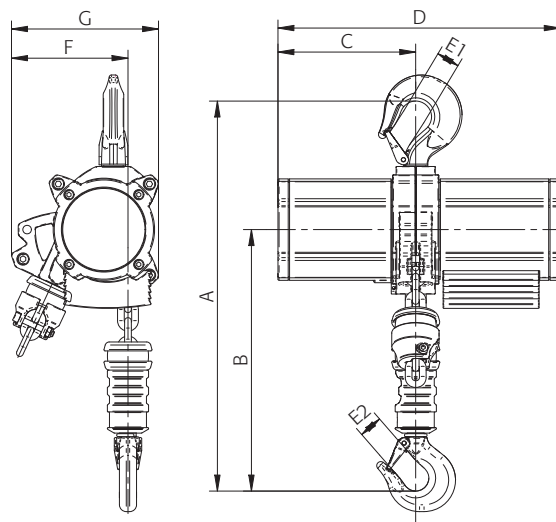
<sup>1</sup> Measured at 1 m distance acc. to DIN 45635 part 20



### DIMENSIONS

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

<sup>1</sup> Chain containers increase the headroom



## PROFI 3 TI - 20 TI

### TECHNICAL DATA

Type		3 TI	6 TI	10 TI	16 TI	20 TI
Air pressure	PSI	85	85	85	85	85
	Bar	6	6	6	6	6
Capacity	mt	3.2	6.3	10	16	20
Number of chain standards		1	2	2	3	4
Motor output	kW	3.5	3.5	3.5	3.5	3.5
Lifting speed without load	ft/min	32.8	16.4	10.5	6.6	4.6
	m/min	10	5	3.2	2	1.4
Lifting speed at full load	ft/min	16.4	8.2	5.2	3.3	2.3
	m/min	5	2.5	1.6	1	0.7
Lowering speed at full load	ft/min	35.4	17.7	11.2	6.9	5.3
	m/min	10.8	5.4	3.4	2.1	1.6
Air consumption at full load – lifting	cfm	142	142	142	142	142
	m <sup>3</sup> /min	4	4	4	4	4
Air consumption at full load – lowering	cfm	195	195	195	195	195
	m <sup>3</sup> /min	5.5	5.5	5.5	5.5	5.5
Air connection		G 3/4	G 3/4	G 3/4	G 3/4	G 3/4
Hose dimension (∅ inside / ∅ outside)	mm	19/31	19/31	19/31	19/31	19/31
Weight with standard lift	lbs	189.6	242.5	343.9	529.1	627
	kg	86	110	156	240	285
Chain dimension	mm	13 x 36	13 x 36	16 x 45	16 x 45	16 x 45
	lbs/ft	2.6	2.6	3.9	3.9	3.9
Weight of chain	kg/m	3.8	3.8	5.8	5.8	5.8
Standard lift	ft	10	10	10	10	10
	m	3	3	3	3	3
Length of control at standard lift	ft	6.5	6.5	6.5	6.5	6.5
	m	2	2	2	2	2
Sound level at full load <sup>2</sup> - lifting	dB(A)	78	78	78	78	78
Sound level at full load <sup>2</sup> - lowering	dB(A)	80	80	80	80	80

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

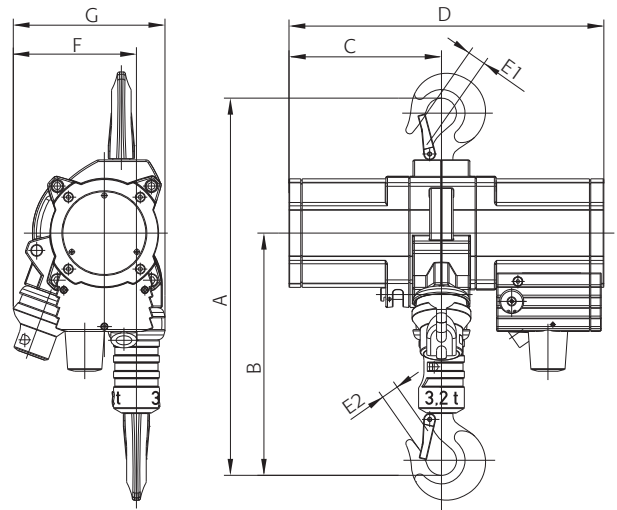


PROFI 3 TI

### DIMENSIONS

Type		3 TI	6 TI	10 TI	16 TI	20 TI
A min. headroom <sup>1</sup>	inch.	23.3	26.5	32	35.4	40.6
	mm	593	674	813	898	1030
B	inch.	14.7	17.9	21.6	23.5	26.4
	mm	373	454	548	598	670
C	inch.	9.2	9.2	12.1	15	15
	mm	233	233	308	382	382
D	inch.	19	19	22.6	27.2	27.2
	mm	483	483	575	692	692
E1	inch.	1.6	1.6	1.7	2.1	3
	mm	40	40	44	53	75
E2	inch.	1.2	1.6	1.7	2.1	3
	mm	30	40	44	53	75
F	inch.	7.4	6.1	7.8	7.8	7.1
	mm	187	154	197	199	180
G maximum width	inch.	9.2	9.2	12	12.1	12.4
	mm	233	233	306	308	315

<sup>1</sup> Chain containers increase the headroom



# PROFI 25 TI - 100 TI

## TECHNICAL DATA

Type		25 TI	30 TI	37 TI	50 TI	100 TI
Air pressure	PSI	85	85	85	85	85
	Bar	6	6	6	6	6
Capacity	mt	25	30	37.5	50	100
Number of chain standards		2	2	3	4	4
Motor output	kW	6	6	6	6	10
Lifting speed without load	ft/min	7.5	7.5	5.3	4.3	2.3
	m/min	2.3	2.3	1.6	1.3	0.7
Lifting speed at full load	ft/min	3.6	2.8	2.1	0.9	1.1
	m/min	1.1	0.9	0.7	0.5	0.4
Lowering speed at full load	ft/min	6.2	7.5	4.9	4.6	2.6
	m/min	1.9	2.3	1.5	1.4	0.8
Air consumption at full load - lifting	cfm	194.8	194.8	194.8	194.8	389.5
	m <sup>3</sup> /min	5.5	5.5	5.5	5.5	11
Air consumption at full load - lowering	cfm	230	230	230	230	424.9
	m <sup>3</sup> /min	6.5	6.5	6.5	6.5	12
Air connection	inch.	G1	G1	G1	G1	G 1 1/2
Hose dimension (Ø inside / Ø outside)	mm	25/39	25/39	25/39	25/39	35/51
Weight with standard lift	lbs	1098	1098	1936	1885	5423
	kg	498	498	880	855	2460
Chain dimension	mm	23.5 x 66	23.5 x 66	23.5 x 66	23.5 x 66	31.5 x 90
Weight of 1 m (3.28 ft) chain	lbs/ft	8.2	8.2	8.2	8.2	14.3
	kg/m	12.2	12.2	12.2	12.2	21.3
Standard lift	ft	10	10	10	10	10
	m	3	3	3	3	3
Length of control at standard lift	ft	6.5	6.5	6.5	6.5	6.5
	m	2	2	2	2	2
Sound level at full load <sup>1</sup> - lifting	dB(A)	83	83	83	83	88
Sound level at full load <sup>1</sup> - lowering	dB(A)	83	83	83	83	89

<sup>1</sup> Measured at 1 m distance acc. to DIN 45635 part 20



PROFI 100 TI

## DIMENSIONS

Type		25 TI	30 TI	37 TI	50 TI	100 TI
A min. headroom <sup>1</sup>	inch.	49.6	49.6	55.2	67	86.6
	mm	1260	1260	1400	1700	2200
B	inch.	32.6	32.6	34.3	45	58.1
	mm	827	827	869	1144	1475
C	inch.	14.8	14.8	14.8	18.2	28.9
	mm	377	377	377	463	734
D	inch.	32	32	32	38.6	59.3
	mm	812	812	812	980	1505
E1	inch.	2.9	2.9	4.05	4.1	4.7
	mm	75	75	103	103	120
E2	inch.	2.9	2.9	4.05	4.1	4.7
	mm	75	75	103	103	120
F	inch.	12.6	12.6	20.4	12.2	17.3
	mm	318	318	518	310	440
G maximum width	inch.	19.2	24	29.4	21.2	30.2
	mm	488	610	745	539	767

<sup>1</sup> Chain containers increase the headroom

