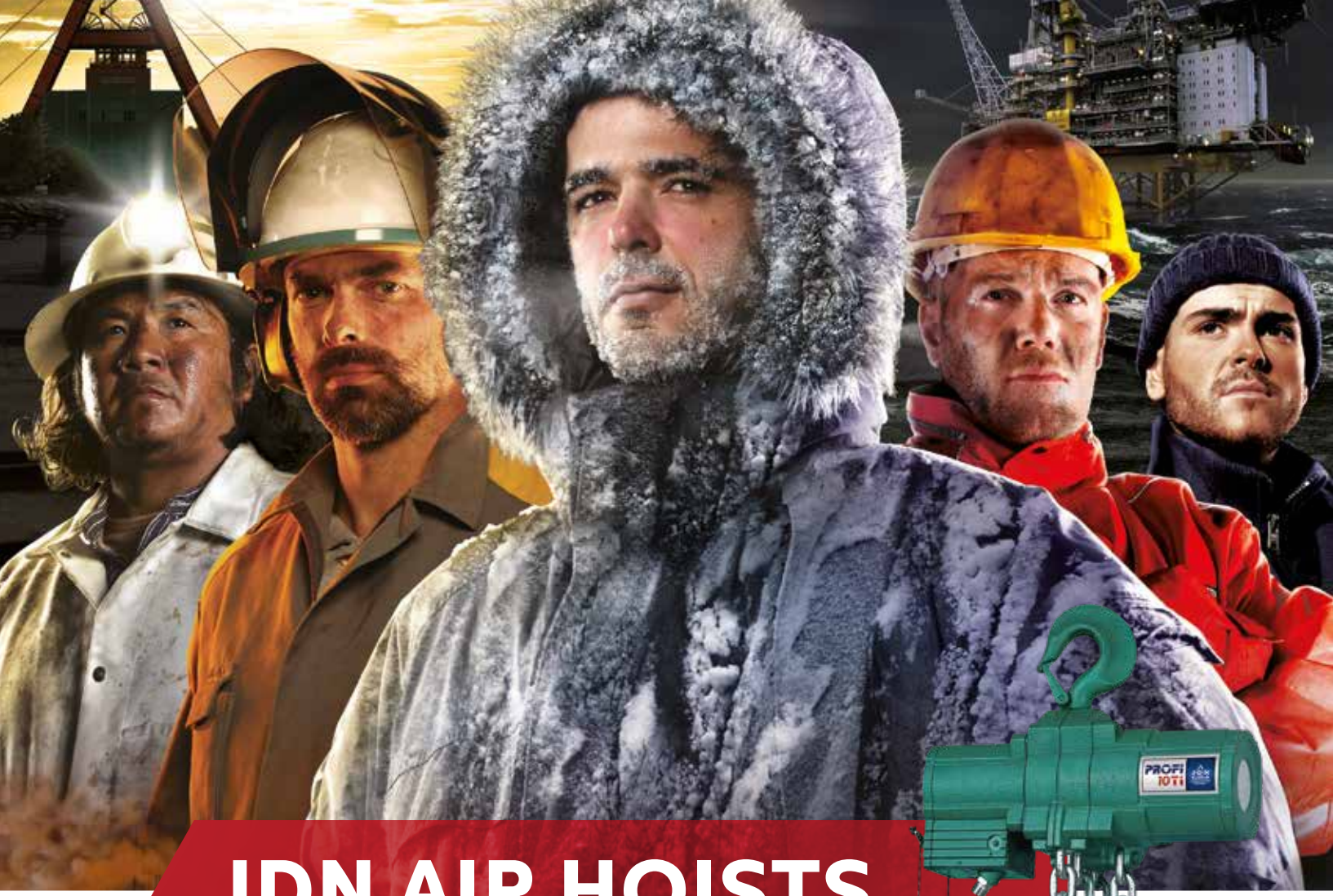

JDN AIR HOISTS PROFI

Distributed by Tri-State Equipment Company Inc.
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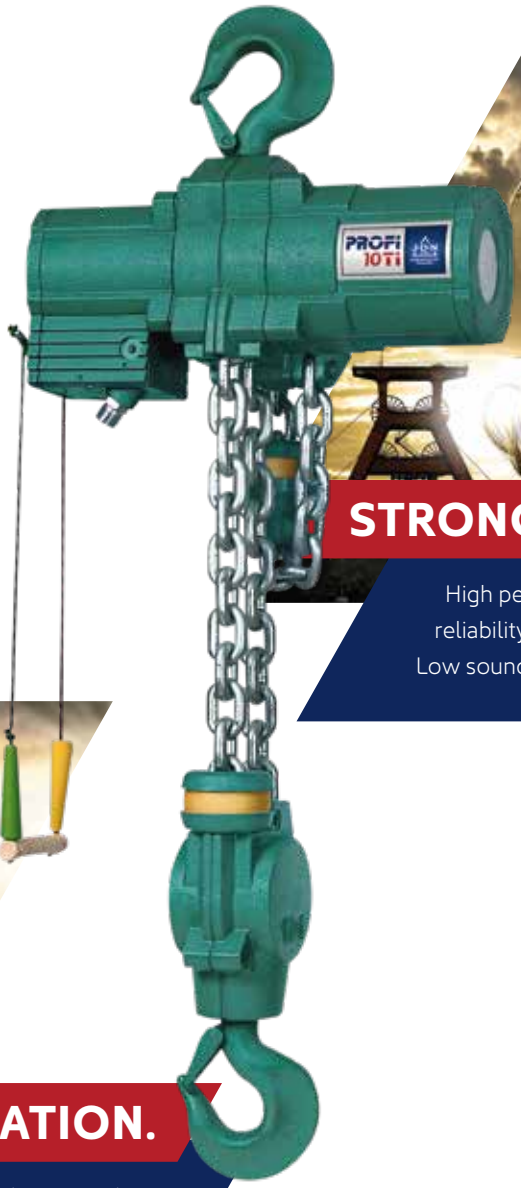
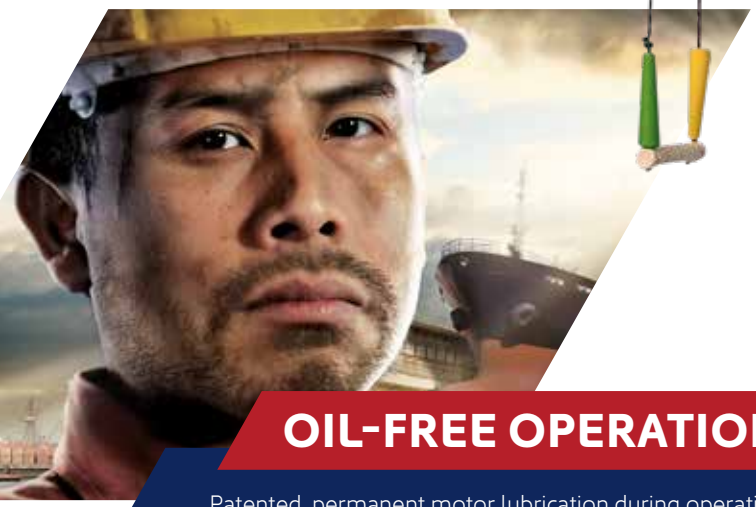
J·D·NEUHAUS
1745
engineered for extremes

JDN AIR HOISTS PROFI





STRONG, FAST, SILENT.

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

OIL-FREE OPERATION.

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

ALWAYS FIT FOR THE JOB AND RELIABLE.

100% Duty Rating – No Downtime, Ex Classification according to EC Directive on Hazardous Locations 94/9/EEC (ATEX 100a)

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. The **PROFI** Series scores well with its 100 % duty rating and explosion protection as standard. 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
- 100 % duty rating and unlimited duty cycles
- Low maintenance
- Low headroom, lightweight
- Sound absorption
- Insensitive to dust, humidity and temperatures ranging from -20°C up to +70°C
- From 1 t upwards with overload protection (EC-version)

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 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 PROFI also suitable for horizontal pulling.

- **100 % Duty Rating – No Downtime**

- **Ex Classification according to EC Directive on Hazardous Locations 94/9/EEC (ATEX 100a)**
  As standard:
  Ⓔx II 2 GD IIA T4/II 3 GD IIB T4
  With increased spark protection:
  Ⓔx II 2 GD IIC T4

THE MODULAR SYSTEM AT A GLANCE

Limit Switch for Trolley Travel
Extension Arm for Control

Special High Performance Grease
for oil-free operation

Service Unit
Filter Regulator

Supply
- Hose Trolleys
- Spiral Hose
- Energy Chain
- C-rail
- Square Bar

Ex Classification
Standard:
(Ex) II 2 GD IIA T4/II 3 GD IIB T4
With increased spark protection:
(Ex) II 2 GD IIB T4
With increased spark protection for explosion group IIC:
(Ex) II 2 GD IIC T4

Trolleys
- Manual Trolley
- Reel Chain Trolley
- Motor Trolley

Housing Finish
- Standard JDN Green
- 3-coat offshore paint system

Filter Silencer

Chain Container
- Chain Box
- Chain Bagl

Limit Switch for Lift

Hook
- Standard
- Copper-plated
- Stainless Steel

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

PROFI 025 TI UP TO 2 TI

TECHNICAL DATA

Type		025 TI		05 TI		1 TI		2 TI	
Capacity	mt	0.16	0.25	0.32	0.5	0.63	1	1.25	2
Air pressure	psi bar	60 4	87 6	60 4	87 6	60 4	87 6	60 4	87 6
Number of chain strands		1		1		1		2	
Motor output	kW	0.6	1.0	0.6	1.0	0.6	1.0	0.6	1.0
Lifting speed at full load	ft/min m/min	65.6 20	65.6 20	32.8 10	36.1 11	16.4 5	18 5.5	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	16.4 5	18 5.5
Lowering speed at full load	ft/min m/min	124.7 38	124.7 38	55.8 17	55.8 17	32.8 10	36.1 11	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	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	28.3 0.8	53 1.5
Air connection		G ½		G ½		G ½		G ½	
Hose dimension (ø inside)	inch mm	½ 13		½ 13		½ 13		½ 13	
Weight with standard lift, rope control	lbs kg	59.5 27	59.5 27	59.5 27	59.5 27	61.6 27.5	61.7[1] 28[1]	75[1] 34[1]	75[1] 34[1]
Chain dimension	mm	7 x 21		7 x 21		7 x 21		7 x 21	
Weight of chain	lbs/ft kg/m	0.67 1.0		0.67 1.0		0.67 1.0		0.67 1.0	
Standard lift	ft m	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	
Noise level at full load[2] – lifting	dB(A)	73	74	74	75	74	76	74	76
Noise level at full load[2] – lowering	dB(A)	77	78	77	78	77	78	77	78

[1]With overload protection

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

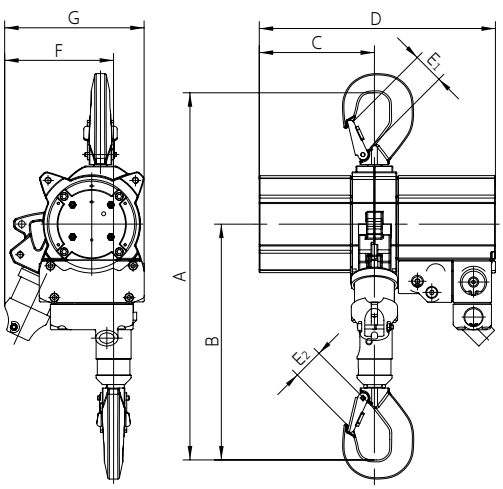
Group mechanism at 6 bar: PROFI 025 TI M5 (2 m), PROFI 05 TI - PROFI 2 TI M4 (1 Am)

PROFI 1 TI

DIMENSIONS

Type		025 TI	05 TI	1 TI	2 TI
A min. headroom[1]	inch mm	17.7 450	17.7 450	17.7 450	19.6 498
B	inch mm	11.3 288	11.3 288	11.3 288	13.2 336
C	inch mm	5.7 145	5.7 145	5.7 145	5.7 145
D	inch mm	11.7 297	11.7 297	11.7 297	11.7 297
E_1	inch mm	1.1 28	1.1 28	1.1 28	1.1 28
E_2	inch mm	1.1 28	1.1 28	1.1 28	1.1 28
F up to hook centre	inch mm	5.4 137	5.4 137	5.4 137	5.4 137
G maximum width	inch mm	6.9 176	6.9 176	6.9 176	7.2 183

[1]Chain containers increase the hoist headroom

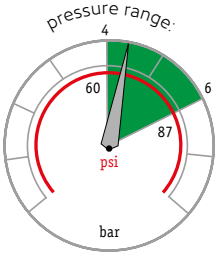


PROFI 1,5 TI AND 3 TI/2

TECHNICAL DATA

Type		1.5TI	3 TI/2
Capacity	mt	1.6	3.2
Air pressure range	psi bar	60-87 4-6	60-87 4-6
Number of chain strands		1	2
Motor output	kW	1.3-2	1.3-2
Lifting speed at full load	ft/min m/min	13.1-19.7 4-6	6.6-9.8 2-3
Lifting speed without load	ft/min m/min	27.6-32.8 8.4-10	13.8-16.4 4.2-5
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 ¾	G ¾
Hose dimension (Ø inside)	inch mm	3/4 19	3/4 19
Weight with standard lift, rope control	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
Group mechanism: M3 (1 Bm)



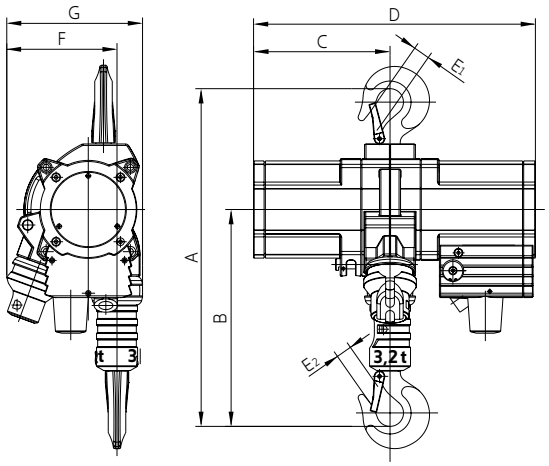
PROFI 1,5 TI

PROFI 3 TI/2

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
E_1	inch mm	1.1 28	1.1 28
E_2	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 UP TO 20 TI

TECHNICAL DATA

Type		3 TI		6 TI		10 TI		16 TI		20 TI	
Capacity	mt	3.2		6.3		10		16		20	
Air pressure	psi bar	60 4	87 6	60 4	87 6	60 4	87 6	60 4	87 6	60 4	87 6
Number of chain strands		1		2		2		3		4	
Motor output	kW	1.8	3.5	1.8	3.5	1.8	3.5	1.8	3.5	1.8	3.5
Lifting speed at full load	ft/min m/min	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
Lifting speed without load	ft/min m/min	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
Lowering speed at full load	ft/min m/min	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	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	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 ¾		G ¾		G ¾		G¾		G¾	
Hose dimension (Ø inside)	inch mm	3/4 19		3/4 19		3/4 19		3/4 19		3/4 19	
Weight with standard lift, rope control	lbs kg	189.6 86		242.5 110		343.9 156		529.1 240		627 285	
Chain dimension	mm	13 x 36		13 x 36		16 x 45		16 x 45		16 x 45	
Weight of chain	lbs/ft kg/m	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	
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[1] – lifting	dB(A)	74	78	74	78	74	78	74	78	74	78
Noise level at full load[1] – lowering	dB(A)	79	80	79	80	79	80	79	80	79	80

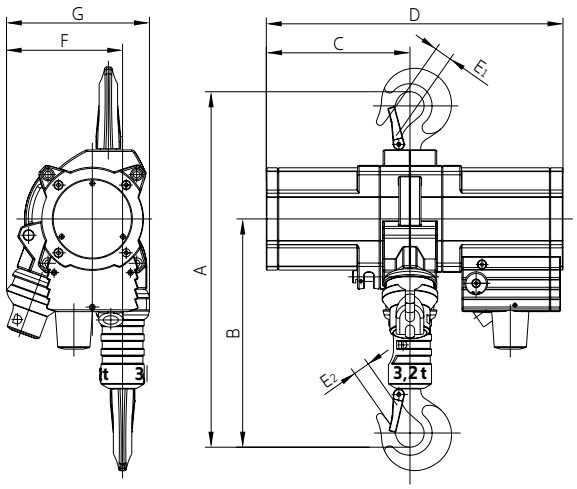
[1]Measured at 1 m distance acc. to DIN 45635 part 20
Group mechanism at 6 bar: M3 (1 Bm)

PROFI 6 TI

DIMENSIONS

Type		3 TI	6 TI	10 TI	16 TI	20 TI
A min. headroom[1]	inch mm	23.3 593	26.5 674	32 813	35.4 898	40.6 1030
B	inch mm	14.7 373	17.9 454	21.6 548	23.5 598	26.4 670
C	inch mm	9.2 233	9.2 233	12.1 308	15 382	15 382
D	inch mm	19 483	19 483	22.6 575	27.2 692	27.2 692
E_1	inch mm	1.6 40	1.6 40	1.7 44	2.1 53	2.8 70
E_2	inch mm	1.2 30	1.6 40	1.7 44	2.1 53	2.8 70
F up to hook centre	inch mm	7.4 187	6.1 154	7.8 197	7.8 199	7.1 180
G maximum width	inch mm	9.2 233	9.2 233	12 306	12.1 308	12.4 315

[1]Chain containers increase the hoist headroom



PROFI 25 TI UP TO 100 TI

TECHNICAL DATA

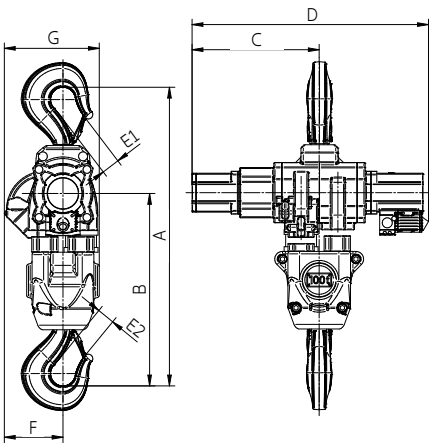
Type		25 TI	30 TI	37 TI	40 TI	50 TI	60 TI	75 TI	100 TI
Capacity	mt	25	30	37.5	40	50	60	75	100
Air pressure	psi bar	87 6							
Number of chain strands		2	2	3	3	4	4	3	4
Motor output	kW	6.3						9	9
Lifting speed at full load	ft/min m/min	4.1 1.25	3.3 1.0	2.5 0.75	2.3 0.7	1.8 0.55	1.5 0.45	1.7 0.53	1.3 0.4
Lifting speed without load	ft/min m/min	7.9 2.4	7.9 2.4	5.6 1.7	5.6 1.7	4.3 1.3	4.3 1.3	4.4 1.33	3.3 1
Lowering speed at full load	ft/min m/min	9.2 2.8	9.2 2.8	6.6 2.0	6.6 2.0	5.3 1.6	5.3 1.6	4.1 1.25	3.1 0.95
Air consumption at full load – lifting	cfm m^3/min	230 6.5						268.5 7.6	
Air consumption at full load – lowering	cfm m^3/min	102 2.9						212 6	
Air connection		G 1 ½							
Hose dimension (Ø inside)	inch mm	1 ½ 35							
Weight with standard lift, rope control	lbs kg	1213 550	1213 550	1874 850	1874 850	2072 940	2072 940	3968 1800	4409 2000
Chain dimension	mm	23.5 x 66						32 x 90	
Weight of chain	lbs/ft kg/m	8.2 12.2						14.3 21.3	
Standard lift	ft m	10 3							
Length of control at standard lift	ft m	6.5 2							
Noise level at full load[1] – lifting	dB(A)	78						77	
Noise level at full load[1] – lowering	dB(A)	82						83	

[1]Measured at 1 m distance acc. to DIN 45635 part 20
Group mechanism at 6 bar: PROFI 25 TI, 37 TI, 50 TI, 75 TI, 100 TI: M3 (1 Bm), PROFI 30 TI, 40 TI, 60 TI: M2 (1 Cm)
4 bar versions on request

PROFI 100 TI

DIMENSIONS

Type		25 TI	30 TI	37 TI	40 TI	50 TI	60 TI	75 TI	100 TI
A min. headroom[1]	inch mm	49.6 1260	49.6 1260	57.9 1470	57.9 1470	58.5 1485	58.5 1485	76 1930	76 1930
B	inch mm	32.6 827	32.6 827	36.8 935	36.8 935	37.4 950	37.4 950	49.2 1250	49.2 1250
C	inch mm	17.7 450	17.7 450	21.3 540	21.3 540	21.3 540	21.3 540	32.5 825	32.5 825
D	inch mm	35.4 900	35.4 900	42.5 1080	42.5 1080	42.5 1080	42.5 1080	60.4 1535	60.4 1535
E1	inch mm	2.8 70	2.8 70	3.9 100	3.9 100	3.9 100	3.9 100	4.7 120	4.7 120
E2	inch mm	2.8 70	2.8 70	3.9 100	3.9 100	3.9 100	3.9 100	4.7 120	4.7 120
F up to hook centre	inch mm	10.6 270	10.6 270	11.2 285	11.2 285	9.8 250	9.8 250	15.9 405	14.4 365
G maximum width	inch mm	17.5 445	17.5 445	17.7 450	17.7 450	16.9 430	16.9 430	23.6 600	23.6 600



[1]Chain containers increase the hoist headroom

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