# JDN AIR WINCHES PROFI

JDN-FOR ALL YOUR PNEUMATIC HOIST AND WINCH REQUIREMENTS.



Capacities: 500 kg/1100 lbs up to 3000 kg/6600 lbs

Air pressure: 4 bar (65 PSI) or 6 bar (85 PSI)





#### JDN AIR WINCHES

#### ADVANTAGE BY DESIGN

J.D. Neuhaus has been the market leader in compressed air powered lifting equipment for decades. In our latest milestone we have added a series of air winches to our product line.

The new JDN Air Winches utilize a self lubricating vane motor with integrated brake function for fewer components. This technology has been proven in our chain hoist series, and results in reduced maintenance costs, with no additional air lubricant required. The winches with high rope capacities are easy to operate, with a fully variable speed lever control at the winch or via E-Type or FI-Type pendant controls. As an added safety feature the controls are available with a main air emergency shut off valve. Additional options include a fully adjustable drum guard for multiple rope working angles.



**PROFI LIFTER 1200** 

**PROFI LIFTER 800** 

### PROFI LIFTER 500/800

JDN Air Winches with capacities of 500 kg and 800 kg. Lightweight aluminium castings make this series mobile, ideal for multiple applications. These winches can also be supplied with an optional travel limit switch.

The Ex-classification is:  $\langle E \rangle$  II 3 GD IIA T4(X).



PROFI LIFTER 2000 WITH E-TYPE CONTROL

### PROFI LIFTER 1200/2000 AND PROFI PULLER 1800/3000

JDN Lifting and Pulling Winches in a compact very durable steel structure with capacities of 1200 kg and 2000 kg respectively 1800 kg and 3000 kg. Explosion classification for the standard models:  $\langle Ex \rangle$  II 2 GD IIA T4(X)/ II 3 GD IIB T4(X), with increased spark protection:  $\langle Ex \rangle$  II 2 GD IIB T4(X).

#### Standard features

- Drum integrated exhaust air cooled planetary gear for minimum maintenance and maximum reliability.
- High rope capacity at a 4-layer spooling
- Ideal ratio of rope/drum diameter (factor 21) ensures a long duty cycle of the rope
- Variable speeds, easy to install, low noise level
- Integrated overload protection
- Suited for applications in hazardous areas

In addition to the JDN control options, further options are available for Profi Lifter 1200/2000 and Profi Puller 1800/3000:

- Adjustable drum guard for multiple rope working angles
- Longer drums to accommodate max. rope capacities
- Pressure roller for perfect rope spooling
- Offshore paint kits
- Emergency valve to shut off main air supply
- Limit switch system
- The Puller series features a free-spooling clutch for manual rope spooling while unloaded

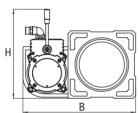


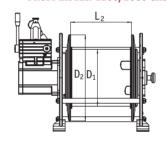
PROFI PULLER 3000 WITH LONG DRUM AND FREE-SPOOLING CLUTCH

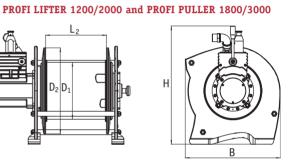
TECHNICAL DATA									
DN AIR WINCH		PROFI LIFTER		PROFI LIFTER		PROFI PULLER			
		500	800	1200	2000	1800	3000		
Air pressure	bar	6*	6*	6*	6*	6*	6*		
Max. number of rope layers		4	3	4	4	4	4		
Max. motor power	kW	2.2	2.2	2.2	2.6	2.2	2.6		
Air connection		G 3/4	G 3/4	G 3/4	G 1	G 3/4	G 1		
Hose size (Ø inside/Ø outside)	mm	19/31	19/31	19/31	25/39	19/31	25/39		
Air consumption at nominal load, pulling	m³/min	-	-	-	-	3.4	4.0		
Air consumption at nominal load, lifting	m³/min	3.4	3.5	3.7	4.3	-	-		
Air consumption without load	m³/min	4.3	4.3	4.4	4.8	4.4	4.8		
Air consumption at nominal load, lowering	m³/min	2.6	3.5	4.8	5.2	-	-		
Max. possible rope diameter	mm	7	10	10	13	10	13		
Minimum breaking force of rope	kN	24.52	39.24	58.8	98.1	53.0	88.3		
Weight (without rope and additional devices) <sup>1</sup>	kg	80	85	138	235	138	235		
Control length for pendant control	m	2	2	2	2	2	2		
Noise pressure level without load - lifting or pulling <sup>2</sup>	dB(A)	85	87	88	87	88	87		
Noise pressure level without load - lowering or unwinding <sup>2</sup>	dB(A)	80	86	90	88	90	88		
Noise pressure level at nominal load - lifting or pulling <sup>2</sup>	dB(A)	83	89	86	85	82	80		
Noise pressure level at nominal load - lowering <sup>2</sup> dB(A)			92	92	88	-	-		

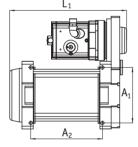
# PROFI LIFTER 500/800

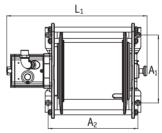












Dimensions in mm	PROFI LIFTER 500/800	PROFI LIFTER/P	ULLER 1200/1800	PROFI LIFTER/PULLER 2000/3000			
		short drum	long drum	short drum	long drum		
В	540	393	393	475	475		
H max.	430	540	540	590	590		
L <sub>1</sub>	510	585	785	700	1100		
L2	290	216	416	305	705		
D <sub>1</sub>	140/160	240	240	285	285		
D2	240	350	350	430	430		
A1	246	295	295	340	340		
A2	318	312	512	449	849		

<sup>&</sup>lt;sup>1</sup> standard version

 $<sup>^{\</sup>rm 2}$  measured at 1 m distance according to DIN 45635 part 20

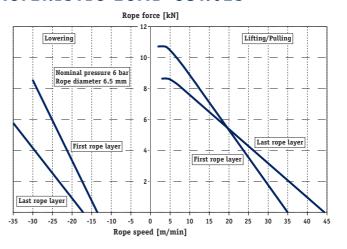
 $<sup>^{\</sup>star}$  data for 4 bar on request

	PERFOR	MANCE D	ATA						
PROFI LIFTER 500 Rope diameter 7 mm		Speeds [m/min]							
	Lif	ting	Lowe	ering					
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	35.0	44.4	13.5	17.1				
Load condition [kg]	250	28.2	33.4	18.3	24.7				
bodd condition [kg]	500	21.4	22.4	23.0	32.3				
	640	17.5	-	25.6	-				
PROFI LIFTER 800 Rope diameter 9 mm		Speeds [m/min]							
			ting	Lowering					
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	31.7	39.2	12.1	15.0				
Load condition [kg]	400	23.2	26.1	18.0	23.9				
_	800	14.6	13.1	23.8	32.8				
	1050	9.3	-	27.5	-				
PROFI LIFTER 1200 Rope diameter 10 mm			Speeds [m/min]						
			ting	Lowering					
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	18.9	23.5	16.3	20.2				
Load condition [kg]	600	14.5	17.8	20.0	25.0				
. 33	1200	10.1	12.1	23.8	29.8				
	1500	7.9	-	25.6	-				
PROFI LIFTER 2000 Rope diameter 12 mm			Speeds [m/min]						
			Lifting Lowering						
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	12.9	16.3	12.6	15.9				
Load condition [kg]	1000	10.1	11.8	14.9	19.6				
	2000	7.2	7.2	17.3	23.4				
	2500	5.8	-	17.9	-				
PROFI PULLER 1800 Rope diameter 10 mm	Speeds [m/min]								
			ling	Unwinding					
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	18.9	23.5	16.3	20.2				
Load condition [kg]	600	14.5	16.7	-	-				
	1200	10.1	9.9	-	-				
	1800	5.6	5.6		-				
PROFI PULLER 3000 Rope diameter 12 mm			Speeds [m/min]						
			ling		nding				
Rope layer		1 <sup>st</sup> layer	4 <sup>th</sup> layer	1 <sup>st</sup> layer	4 <sup>th</sup> layer				
	0	12.9	16.3	12.6	15.9				
Load condition [kg]	1000	10.1	11.8	-	-				
	2000	7.2	7.2	-	-				
	3000	4.4	_	-	_				

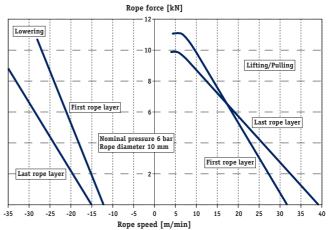


## CHARACTERISTIC LOAD CURVES

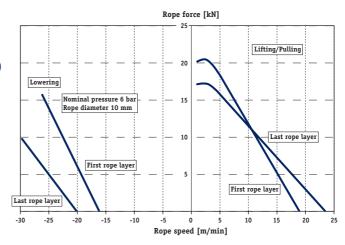
PROFI LIFTER 500



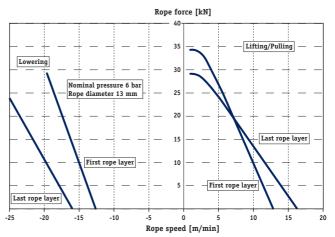
**PROFI LIFTER 800** 



PROFI LIFTER 1200 and PROFI PULLER 1800



PROFI LIFTER 2000 and PROFI PULLER 3000



ROPE CAPACITIES											
PROFI LIFTER 500					PROFI LIFTER 800						
Drum length 290 mm/Drum diameter 140 mm				Drum le	ngth	290 mm/D	rum diame	ter 160 mr	n		
			Rope Rope diameter								
layer used	mm	5.5	6	6.5	7	layer used	mm	7	8	9	10
1st	m	22.7	20.8	19.2	17.7	1st	m	20.2	17.5	15.5	13.9
1st and 2nd	m	48.7	44.8	41.5	38.7	1st and 2nd	m	43.7	38.5	34.4	31.2
1st,2nd and 3rd	m	76.4	70.6	65.7	61.5	1st,2nd and 3rd	m	69.1	61.3	55.2	50.3
1st,2nd,3rd and 4th	m	106.0	98.2	91.7	86.1	-	-	-	-	-	-
	PROFI LIFTER 1200 AND PROFI PULLER 1800										
		Short v	ersion					Long v	ersion		
Rope	Rope diameter			Rope	Rope diameter						
layer used	mm	8	9	10	11	layer used	mm	8	9	10	11
1st	m	17.6	15.5	13.7	12.3	1st	m	37.1	32.9	29.5	26.7
1st and 2nd	m	40.0	35.6	32.1	29.2	1st and 2nd	m	80.2	71.6	64.7	59.1
1st,2nd and 3rd	m	63.8	57.1	51.7	47.4	1st,2nd and 3rd	m	126.0	113.0	102.6	94.2
1st,2nd,3rd and 4th	m	88.9	79.9	72.8	66.9	1st,2nd,3rd and 4th	m	174.3	157.0	143.2	131.8
	PROFI LIFTER 2000 AND PROFI PULLER 3000										
Short version					Long version						
Rope			Rope				Rope diameter				
layer used	mm	10	11	12	13	layer used	mm	10	11	12	13
1st	m	24.3	21.9	19.9	18.2	1st	m	61.4	55.7	51.0	47.0
1st and 2nd	m	54.4	49.5	45.5	42.0	1st and 2nd	m	131.0	119.6	110.2	102.1
1st,2nd and 3rd	m	86.4	79.0	72.9	67.7	1st,2nd and 3rd	m	205.1	188.0	173.8	161.7
1st,2nd,3rd and 4th	m	120.3	110.5	102.3	95.4	1st,2nd,3rd and 4th	m	283.6	260.8	241.8	225.7

Note: The calculated possible rope capacities depend upon the rope diameter and rope layers used as listed in the tables. The retention of the required three safety windings was also taken into account.

# JDN Air Winches complete the JDN product line. Herewith J.D. Neuhaus offers all the options for innovative material handling solutions.

JDN Air Hoists, Cranes, Trolleys, Monorail Hoists and JDN Air Winches are in use in at least 70 different industries in over 90 countries worldwide. Typical areas of application are the chemical industry, on- and offshore industry, ship building and repair industry, machine and plant construction, and assembly lines. JDN Air Hoists and Winches are especially suitable for application in areas at risk of explosion as the compressed air power source does not produce any sparks.

W 601 GB  $\cdot$  Issue: December 2004  $\cdot$  Alterations reserved  $\cdot$  With the issue of this edition all previous versions are null and void  $\cdot$  1220042

J.D. Neuhaus GmbH & Co. KG\_D-58449 Witten-Heven Phone: +49 (0) 23 02-2 08-0\_Fax: +49 (0) 23 02-2 08-286 web site: www.jdn.de\_e-mail: info@jdn.de

