

**vietz®**

YOUR GLOBAL PARTNER FOR PIPELINE EQUIPMENT





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# ARCOTRAC

Welding pipes involves special requirements regarding the equipment used.

We meet this challenge with the machines of our ARCOTRAC series.

The ARCOTRAC is a machine developed as a tracked welding vehicle and optimised for this application. Unlike many converted bulldozers, a single diesel engine supplies all the components of the ARCOTRAC with power.

The user only needs to fill up that one engine with fuel, and only needs to provide maintenance materials for that engine. Coupled to the engine are both the electric generator of the machine and the hydraulic pump group, which supplies the tracked running gear and the working crane of the machine. The tracked running gear moves the ARCOTRAC at two driving speeds, even through difficult terrain. The crane drives the tent or cabin in which the pipes are welded to one another. Its position at the front of the machine thereby makes operating and positioning easier.



The generator supplies the electrical power for the welding equipment, which can be stored in lockable housings. For auxiliary machines, the ARCOTRAC has sufficient additional power sockets. The electrical plant is safeguarded by means of insulation monitoring. We can supply additional protective equipment, such as RCD or isolating transformers, at the request of the customer.

In any case, the modular concept of the ARCOTRAC series makes it possible to largely fulfil the customer's requests. Options include, for example, an air-conditioning system, compressor package (for instance, for operating an internal pneumatic line-up clamp), lighting mast, hydraulic lifter for welding gas cylinders, for equipping the tracked running gear with rubber pads for deployment on surfaced roads or additional safety equipment.

We naturally supply the devices of the ARCOTRAC series in accordance with the exhaust regulations that are in force in your operational area, and with a crane in accordance with the customer's specifications. The machine operator drives the machine from his/her cabin, controls the crane, and switches the power or the optional compressor on or off. With longer pipelines ARCOTRACS often drive as a group, and with the first machine, the root is welded and with the other two to five ARCOTRACS, the intermediate seams and cover seams are welded.

VIETZ produces the tracked welding vehicle as the ARCOTRAC 1100, with up to four welding stations, and as the ARCOTRAC 1800, with up to six welding stations.

# TECHNICAL SPECIFICATION ARCOTRAC 1100

	Unit	Type 1100		
Number of welding stations	pcs	2 - 4		
<b>ENGINE</b>		<b>International</b>	<b>EU 2019</b>	<b>EU 2020</b>
Type		DEUTZ TCD 2013 L04 2V	VOLVO TAD 571 VE	VOLVO TAD 581 VE
Fuel		diesel	diesel	diesel
No of cylinders	pcs	4	4	4
Configuration		inline-four	inline-four	inline-four
Displacement	l	4.8	05. Jan	5.1
Cooling		liquid	liquid	liquid
Working power @1500 rpm	kW/hp	110 / 148	125 / 168	125 / 168
Emission class		EU Stage III A / Tier 3	EU Stage IV	EU Stage V
Electrical system	V	24 DC		
Onboard control system		Vietz VCU		
<b>GENERATOR</b>				
Electrical Power	kVA	132		
Frequency @1500 rpm	Hz	50		
Frequency* @1800 rpm	Hz	60		
<b>CRANE</b>				
Type**		Fassi F85B	Fassi F95A	
Max. reach (with hydraulic telescopes)	m	7,5	5,9	
Lifting capacity @max. reach	kg	1045	1545	
Max. lifting capacity @min. reach	kg	3920	3565	
Crane operation		From inside the cab / Remote control optional		
<b>UNDERCARRIAGE</b>				
Track chain type		B2		
Track/Carrier rollers	pcs	9		
Gauge	mm	3320		
Length of track on ground	mm	2300		
Triple grouser shoes width	mm	500		
Ground pressure	kg/cm <sup>2</sup>	0,36		
Max. speed	km/h	5,1		
<b>TANK CAPACITY</b>				
Diesel	l	450		
Hydraulic	l	200		
<b>AIR COMPRESSOR*</b>				
		two stage piston compressor		
Type**		Atlas Copco LT 15-20E	Quincy 500	
Air flow rate	l/min	910	975	
Max. pressure in bar	bar	16		
<b>SHIELDING GAS*</b>				
Bottle rack		fixed rack***	hydraulic liftable platform	
Max. number of gas cylinders	pcs	4	6	
<b>BASIC SPECIFICATIONS</b>				
Dimensions (L x W x H)	mm	5725 x 2850 x 3020	5500 x 2850 x 3020	5500 x 2850 x 3020
Operating weight	kg	11500	11500	11500
Heatable cab with rollover protection system (ROPS)		Standard		
<b>Article no.</b>		<b>on request</b>	<b>on request</b>	<b>on request</b>
<b>AIR CONDITIONING*</b>				
		Article no. 38958B		
Ambient temperature	°C	-20 ... +55		
Ambient temperature with Arctic Kit	°C	-38 ... +20		

\* optionally available | \*\* other types on request | \*\*\* optionally with hydraulic liftable platform (6 pcs) | Mistakes and changes are reserved



# TECHNICAL SPECIFICATION ARCOTRAC 1800

		Unit	Type 1800			
Number of welding stations		pcs	4 - 6			
<b>ENGINE</b>						
Type			DEUTZ TCD 2013 L06 2V		VOLVO TAD 881 VE	
Fuel			diesel		diesel	
No of cylinders		pcs	6		6	
Configuration			inline-six		inline-six	
Displacement		l	7.1		7.7	
Cooling			liquid		liquid	
Working power @1500 rpm		kW/hp	168 / 225		180 / 241	
Emission class			EU Stage III A / Tier 3		EU Stage V	
Electrical system		V			24 DC	
Onboard control system					Vietz VCU	
<b>GENERATOR</b>						
Electrical Power		kVA	210			
Frequency @1500 rpm		Hz	50			
Frequency* @1800 rpm		Hz	60			
<b>CRANE</b>						
			FASSI	FASSI	FASSI	FASSI
Type**			F155A	F175A	XS 166	165.2
Max. reach (with hydraulic telescopes)		m	8,25	10,1	8,1	8,2
Lifting capacity @max. reach		kg	1750	1415	1800	1860
Max. lifting capacity @min. reach		kg	5000	7680	5000	4350
Crane operation			From inside the cab / Remote control optional			
<b>UNDERCARRIAGE</b>						
Track chain type			D4D			
Track/Carrier rollers		pcs	12			
Gauge		mm	4050			
Length of track on ground		mm	3050			
Triple grouser shoes width		mm	600			
Ground pressure		kg/cm <sup>2</sup>	0,46			
Max. speed		km/h	5			
<b>TANK CAPACITY</b>						
Diesel		l	450			
Hydraulic		l	200			
<b>AIR COMPRESSOR*</b>						
			two stage piston compressor			
Type**			Atlas Copco LT 15-20E		Quincy 500	
Air flow rate		l/min	910		975	
Max. pressure in bar		bar	16			
<b>SHIELDING GAS*</b>						
Bottle rack			hydraulic liftable platform			
Max. number of gas cylinders		pcs	8			
<b>BASIC SPECIFICATIONS</b>						
Dimensions (L x W x H)		mm	6500 x 2950 x 3470/3450		6500 x 3100 x 3800/3600	
Operating weight		kg	18000		18000	
Heatable cab with rollover protection system (ROPS)			Standard			
<b>Article no.</b>			<b>on request</b>		<b>on request</b>	
<b>AIR CONDITIONING*</b>						
			<b>Article no. 38958B</b>			
Ambient temperature		°C	-20 ... +55			
Ambient temperature with Arctic Kit		°C	-38 ... +20			

\* optionally available | \*\* other types on request | \*\*\* optionally with hydraulic liftable platform (6 pcs) | Mistakes and changes are reserved



# BENDING MACHINES

Pipelines must follow the contours of the site terrain.

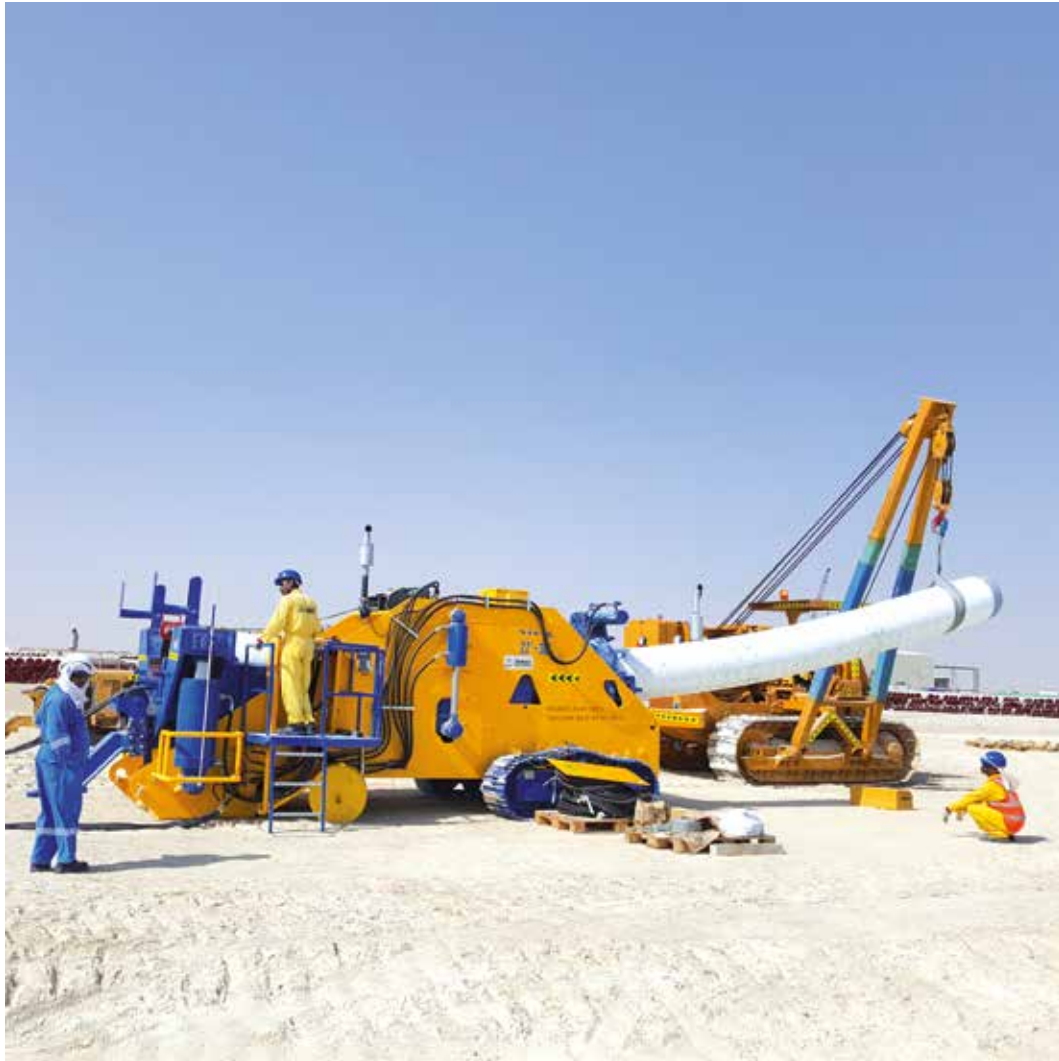
Inevitably, it will thereby also be necessary to lay the pipeline in curves or in upward and downward slopes.

This cannot be achieved with straight pipes.

However, it is neither purposeful nor economical to use factory made pipe bends.

One advantage of steel as pipe material is that it can be plastically deformed without being preheated. With a pipe-bending machine, pipes adapted to the necessary route can be produced on the building site in several successive steps, through the straight pipes being respectively given a specific bend and "tailor-made" for use in this way.

The hydraulics system of our bending machines is driven by high-performance diesel engines made by reputable manufacturers, that we select at the exhaust emission level required by the customer. With the hydraulic pumps, we rely on sufficient power reserves and outstanding quality.



The pipe is bent through the hydraulic movement of several functional components of the machine. In the case of pipe bending machines made by Vietz, these movements run one after the other in a clearly defined sequence and the force of each of the functional groups can be individually adjusted to the material, diameter and wall thickness of the pipe through the hydraulic pressure. Even with difficult pipes, excellent bending results can be achieved in this way.

Vietz bending machines are always suitable for several pipe sizes. The machine is already equipped with the necessary pipe holders for the largest respective pipe diameter. For working with all smaller pipe sizes, we supply inserts that are attached to the machine with screws. Our bending machines make it unnecessary to weld and separate inserts.

The top die, whose shape is used to create the bend, is supplied to fit the respective pipe size and, together with the inserts, makes up what is called the "bending set". Our bending machines are supplied with prepared quick-connect couplings and operating elements for using a hydraulic mandrel, which is often indispensable for fulfilling the project conditions. The bending specialist controls all the functions of the machine from his/her operator platform, which we have positioned to provide the best possible overview.

For particularly cold or harsh surrounding conditions, as well as to fulfil special customer requirements, we supply suitable special models of our machines.

# TECHNICAL SPECIFICATION PBM 6-24" - 22-36"

	Unit	Model		Model		Model	
		PBM 6-24"		PBM 16-30"		PBM 22-36"	
ENGINE		International	EU	International	EU	International	EU
Type		Deutz D 2011 L04 i	Deutz TCD 2.9 L4	Deutz TCD 2012 L04 2V	Deutz TCD 2.9 L4 HP	Deutz TCD 2013 L04 2V	Deutz TCD 3.6 L4
Fuel		Diesel	Diesel	Diesel	Diesel	Diesel	Diesel
Configuration		inline-four	inline-four	inline-four	inline-four	inline-four	inline-four
Displacement	ccm	3,6	2,9	4	2,9	4,8	3,6
Cooling		air	liquid	liquid	liquid	liquid	liquid
Power	kW/hp	43	55	83	75	104	100
Engine speed	rpm	2200	2200 (2600)	2200	2300	2200	2300
Emission class		EPA Tier 3 EU Stage III A	EU Stage V	EPA Tier 3 EU Stufe IIIA	EU Stufe V	EPA Tier 3 EU Stufe IIIA	EU Stufe V
<b>HYDRAULIC SYSTEM</b>							
Type of pump		axial piston open circuit pump		axial piston open circuit pump		axial piston open circuit pump	
No of pumps (working - cooling)		1 - 1		1 - 1		1 - 1	
Maximum pressure	bar	210		250		240	
Flow at rated speed	l/min	125 (140)		125		200	
<b>CAPACITIES</b>							
Fuel tank	l	90		250		250	
Hydraulik tank	l	170		400		450	
<b>ENGINE ELECTRICAL SYSTEM</b>							
Voltage	V	12		24		24	
Number's of batteries, maintenance free	pcs	1		2		2	
Capacity of batteries	Ah	88		176		176	
<b>WINCH</b>							
Type		Hydraulic drive		Hydraulic drive		Hydraulic drive	
Maximum pulling force (bottom/top rope layer)	kN	45		80/50		80/50	
Maximum rope speed (bottom/top rope layer)	m/min	2,6/8,9		7/11		7/11	
Rope diameter	mm	10		12		12	
Maximum oil pressure	bar	150		200		200	
<b>UNDERCARRIAGE</b>							
Track chain type / type		Tire	Chain track type B1**	B1		B2	
Triple grouser shoes width	mm	500		500		500	
<b>DIMENSIONS AND WEIGHT</b>							
		<b>Wheeled / Tracked Version</b>					
Length	mm	4.675	4.960	6.300		7.210	
Width	mm	2.320	2.330	3090 / 2700***		3230 / 2860***	
Height	mm	2.335	2.335	2.250		2.540	
Operating weight	kg	9.000	10.500	19.000		24.300	
<b>Article no.</b>		<b>on request</b>		<b>40442</b>		<b>40443W</b>	

\* other types on request | \*\* optionally available | \*\*\* without platform | \*\*\*\* without undercarriage | \*\*\*\*\* without winch | Mistakes and changes are reserved

# TECHNICAL SPECIFICATION PBM 30-42" - 48-64"

Unit	Model		Model		Model		Model	
	PBM 30-42"		PBM 36-48"		PBM 42-56"		PBM 48-64"	
	International	EU	International	EU	International	EU	International	EU
	Deutz TCD 2013 L04 2V	Deutz TCD 4.1 L4	Deutz TCD 2013 L04 2V	Deutz TCD 4.1 L4	Deutz TCD 2013 L06 2V	Deutz TCD 6.1 L6	Deutz TCD 2013 L06 2V	Deutz TCD 7.8 L6
	diesel	diesel	diesel	diesel	diesel	diesel	diesel	diesel
	inline-four	inline-four	inline-four	inline-four	inline-six	inline-six	inline-six	inline-six
ccm	4,8	4,1	4,8	4,1	7,1	6,1	7,1	6,1
	liquid	liquid	liquid	liquid	liquid	liquid	liquid	liquid
kW/hp	129	115	129	115	197	180	197	180
rpm	2300	2300	2300	2300	2200	2300	2200	2300
	EPA Tier 3 EU Stufe IIIA	EU Stufe V	EPA Tier 3 EU Stufe IIIA	EU Stufe V	EPA Tier 3 EU Stufe IIIA	EU Stufe V	EPA Tier 3 EU Stufe IIIA	EU Stufe V
	axial piston open circuit pump		axial piston open circuit pump		axial piston open circuit pump		axial piston open circuit pump	
	1 - 1		1 - 1		1 - 1		1 - 1	
bar	300		300		300		300	
l/min	300		300		400		400	
	320		380		400		400	
	800		800		800		800	
	24		24		24		24	
pcs	2		2		2		2	
Ah	176		176		176		176	
	Hydraulic drive		Hydraulic drive		Hydraulic drive		Hydraulic drive	
kN	80/50		100/65		150/107		150/107	
m/min	7/11		8/9,5		5/7		5/7	
mm	12		16		19		19	
bar	200		200		175		175	
	D7E		D7E		B8		B8	
mm	600		600		600		600	
mm	8.680		8.860		9.650		9.760	
mm	3660 / 3440***		3880 / 3660***		4100 / 3990***		4350 / 4240*** / 4000****	
mm	3120 / 2980*****		3520 / 3220*****		4020 / 3520*****		4240 / 3740*****	
kg	49.000		59.500		73.000		73.000	
	<b>40444D</b>		<b>40445D</b>		<b>40481</b>		<b>40444D</b>	<b>on request</b>

\* other types on request | \*\* optionally available | \*\*\* without platform | \*\*\*\* without undercarriage | \*\*\*\*\* without winch | Mistakes and changes are reserved





# MANDREL

Vietz mandrels work hydraulically,  
are optimised for use with our bending machines  
and are controlled by the bending specialist  
at the control panel of the bending machine.

During the remodelling process in the bending machine, the outer curve area of the pipe is stretched, and the inner one is compressed. There is a tendency here for the pipe to collapse inwards, buckle or form dents.

If the pipe is being used for a pipeline, all of these cross-section flaws will have a negative impact on the fluid mechanics. For this reason, maximum cross-section flaws are usually specified when constructing a pipeline. Typical limits lie at 2% of the outer pipe diameter.

During the bending process, a mandrel is placed in the remodelling zone on the inside of the pipe, to counteract the tendency for cross-section flaws to appear.



The mandrel can be hydraulically clamped or retracted. When it is clamped, rubber buffers press from inside against the pipe areas that are being compressed or stretched. When retracted, the mandrel can be moved on its rollers.

From a pipe size of 14 inches (DN 350) upwards, our mandrels are equipped with a hydraulic drive to facilitate positioning inside the pipe. With smaller mandrels, there isn't enough space inside the pipe for this.

Especially with spiral-welded pipes, every mandrel tends to be deflected a little to the side every time it passes over the weld seam. Overall, the mandrel will tilt until, at some point, it will no longer operate reliably. In the worst case, the rollers will lose contact with the surface.

From a construction size of 22 inches (DN 550) upwards, Vietz mandrels are equipped with running gear that is able to swing, which allows the mandrel to be correctly realigned inside the pipe without having to suspend working operations.

## TECHNICAL SPECIFICATION MANDREL

Unit		Model					
		6-8"	10-12"	14-16"	16-18"	18-20"	22-24"
<b>GENERAL</b>							
Pipe size	inch	6-8	10-12	14-16	16-18	18-20	22-24
DN		150-200	250-300	350-400	400-450	450-500	550-600
Pipe inside diameter min.	mm	123,9	209,5	292,0	342,8	393,4	482,8
Pipe inside diameter max.	mm	212,7	315,1	396,8	447,4	496,8	597,2
<b>ENGINE</b>							
Displacement	ccm	-	-	12,5	12,5	32	32
Quantity of motors	pcs	-	-	2	2	2	2
<b>WHEEL</b>							
Diameter Ø	mm	34	70	100	100	140	160
Quantity of wheels	pcs	3	3	4	4	4	4
<b>CLAMPING RANGE</b>							
Overall lenght (rubber pads)	mm	390	590	630	730	730	750
vertical throw max.	mm	39	40	53	53	70	70
min. Ø with pads	mm	125	226	264	298	342	443
<b>MEASUREMENTS AND WEIGHT</b>							
Lenght	mm	1300	1540	1720	1678	1810	1805
Width	mm	105	217	345	376	430	443
Height	mm	160	318	356	395	432	533
Weight	kg	60	110	185	240	370	470
<b>SETTING OF RUBBER PADS</b>							
Quantity of plates	pcs	2	6	6	6	6	10
Quantity of pads	pcs	10	30	30	30	30	70
<b>Article no.</b>		<b>40672</b>	<b>40678H</b>	<b>40697</b>	<b>40689</b>	<b>40698</b>	<b>40683</b>

Mistakes and changes are reserved

## TECHNICAL SPECIFICATION MANDREL

Unit	Model								
	26-28"	28-30"	30-32"	36-38"	40-42"	46-48"	48"	52"	56"
inch	26-28	28-30	30-32	36-38	40-42	46-48	48	52	56
	650-700	700-750	750-800	900-950	1000-1050	1150-1200	1200	1300	1400
mm	609,2	660,2	698,4	850,4	952,4	1104,4	1155,4	1257,4	1358,4
mm	698,2	749,2	800,2	949,2	1049,6	1201,6	1201,6	1302	1403
ccm	32	50	50	80	100	100	100	100	200
pcs	2	2	2	2	2	2	2	2	2
mm	160	180	200	250	250	250	250	250	300
pcs	4	4	4	4	4	4	4	4	4
mm	1030	1348	1348	1714	1715	1844	1844	1844	2144
mm	81	88	77	120	130	155	148	148	148
mm	538	583	632	741	833	955	1017	1118	1220
mm	2090	2100	2350	2775	2780	3760	3750	3750	3465
mm	635	660	690	840	890	1055	1080	1210	1260
mm	615	670	732	840	932	1057	1065	1165	1264
kg	775	1070	1310	2120	2480	3670	3980	4420	5170
pcs	16	14	14	18	18	18	20	24	20
pcs	160	126	126	234	234	234	260	312	260
	<b>40684</b>	<b>40682</b>	<b>40679</b>	<b>40686</b>	<b>40688</b>	<b>40699</b>	<b>40694</b>	<b>40691</b>	<b>40692N</b>

Mistakes and changes are reserved



# ELC

## EXTERNAL LINE-UP CLAMP

Edge offset cannot be tolerated on pipelines. This is why centring devices are used, which allow the pipes to be aligned to one another as offset-free as possible prior to welding. A distinction is made here between internal and external line-up clamps.

An external line-up clamp (ELC) consists of two steel rings, connected by bridges, with adjustable pressure pieces. It is placed externally over the joint of two pipes and is equipped with a hinge for doing this. After it locks, it is clamped, depending on version and size, via mechanical levers or a hydraulic cylinder and thereby forces the two pipe ends together into the desired position. We offer ELCs that are clamped hydraulically in a medium-duty and heavy-duty version.

In their case, the hydraulic cylinder is driven via an integrated hand or a separate foot pump. The force thereby applied to the pipes is many times that applied by the cylinder, in accordance with the lever principles. External line-up clamps are respectively dimensioned for one clearly specified outer diameter and cannot be used for other pipe sizes.





# IPLC

## INTERNAL PNEUMATIC LINE-UP CLAMP

It is better for external welding  
if the centring device is located on the inside of the pipe  
and if no disruptive parts are able to impede the welding process.

For many years, VIETZ has been relying on internal pneumatic line-up clamps (IPLCs) with an integrated compressed air tank that is filled, for example, via the compressor on an Arcotrac-type tracked welding vehicle. The tank thereby serves to store energy. Unlike with hydraulic or electrical systems, it is not necessary to create a permanent connection to supply lines for this design during operation.

All functions of the IPLCs take place pneumatically. This applies to the brake and drive, as well as to the centring device itself, which is designed as a double ring of pneumatically extendable plungers.



During operation, the IPLC is positioned in such a way that one of the rings is still situated in the currently last pipe in the line. This ring's plungers are extended, which forces the machine to the central axis of the pipe. Now the new pipe is threaded over the IPLC. Through extending the second plunger ring, this pipe is also fixed in such a way that both pipes have the same central axis.

This minimises edge offset as much as possible. After the welding has been carried out, both rings are declamped and the IPLC is moved to the end of the pipe just connected, in order to connect the next pipe using the same procedure.

For applications where no compressed air is available or where there is no need to manufacture large quantities, we also offer hydraulic internal line-up clamps with a foot or electric pump.

## TECHNICAL SPECIFICATION INTERNAL LINE-UP CLAMP(ILC), Pneumatic

	Unit	Type						
		6"	8"	10"	12-14"	16-18"	20-22"	24-26"
<b>GENERAL</b>								
Pipe size	in	6	8	10	12-14	16-18	20-22	24-26
max. radius of the pipe		R = 40 x D (according API 5L)						
Capacity of the air tank	l	0,7	2,1	5	10	48	70	100
Displacement	pcs	6 / 12	6 / 12	6 / 12	6 / 12	8 / 16	10 / 20	12 / 24
Quantity of motors	kg	465	857	1435	2146	2060	2027	2502
<b>MEASUREMENTS AND WEIGHT</b>								
Lenght	mm	1324	1447	1700	1975	2770	2780	2720
Width	mm	160	180	245	350	413	504	603
Height	mm	160	180	240	335	443	505	603
Weight	kg	25	60	75	115	225	365	523
<b>MEASUREMENTS AND WEIGHT OF CONTROL</b>								
wheel	m	14	14	17	17	17	17	17
Length*	kg	19	19	22	22	22	40	40
Weight								
<b>ENGINE</b>								
Pneumatic motor				-			MAR.1/500	
Power	kW/hp			-			0,8/1,1	
Quantity of motors	pcs			-			1	
<b>Article no.</b>		<b>40179A</b>	<b>40180</b>	<b>40181</b>	<b>40182</b>	<b>40183</b>	<b>40184</b>	<b>40185</b>

\*other length on request | Mistakes and changes are reserved

## TECHNICAL SPECIFICATION INTERNAL LINE-UP CLAMP(ILC), Pneumatic

Unit	Type										
	26-28"	28-30"	30-32"	34-36"	36-38"	40-42"	46-48"	50-52"	56"	64"	
in	26-28	28-30	30-32	34-36	36-38	40-42	46-48	50-52	56	64	
	R = 40 x D (according API 5L)										
l	150	200	200	300	350	500	550	550	550	750	
pcs	12 / 24	12 / 24	16 / 32	16 / 32	24 / 48	20 / 40	24 / 48	24 / 48	24 / 48	24 / 48	
kg	4180	3182	4598	4598	4170	4170	4170	4170	4170	4170	
mm	3080	3335	3335	3345	3490	3390	3490	3535	3490	4320	
mm	692	636	739	844	908	988	1082	1230	1310	1504	
mm	692	633	739	844	908	988	1082	1200	1310	1504	
kg	590	610	716	835	1120	1550	1706	1816	2215	3300	
m	17	17	17	17	17	17	17	17	17	17	
kg	40	40	40	40	40	40	40	40	40	40	
	MAR.1/500										
	MAR.3/330										
kW/hp	0,8/1,1		2/2,7								
pcs	1		1				2				4
	40186	40186A	40187B	40188	40188B	40189	40191B	40192	40193	40197	

\*other length on request | Mistakes and changes are reserved



# ROLLER CRADLES & CHOKER BELTS

For many lifting operations on pipeline building sites, belts, slings, ropes/cables or chains are not the right lifting gear. For some special tasks, there are suitable special tools that are tailor-made for that purpose.

With a choker belt, pipes are held in a rotation-safe way. This is particularly important when using the bending machine or when transporting curved pipes. The transportation gear consists of a fixed yoke and a belt that is stretched taut through lifting the pipe. Both parts are equipped with a surface that prevents slipping and protects the pipe coating.

The respective choker belts only fit one pipe size, but can be supplied in various designs with different load capacities.







Roller cradles or lowering-in cradles also fall into the category of special lifting gear in pipeline construction. These are used to lower the finished pipeline into the pipe trench using side boom crawlers. To do this, the crawlers drive as a group in a steady forwards movement. The rollers on our roller cradles are specially shaped and coated with special plastic to prevent any damage to the pipe insulation.

The respective roller cradles can be used with several pipe sizes. We offer them in sizes ranging from 6" (DN 150) to 60" (DN 1500).

## TECHNICAL SPECIFICATION CRADLES 6-12" - 24-38"

	Unit	Model				
		6-12"	6-12" 7t	12-24"	24-36"	24-38"
Application		Lift and lower a pipeline with a side boom				
<b>GENERAL</b>						
Pipe size	inch	6-12"	6-12"	12-24"	24-36"	24-38"
Pipe size DN	mm	150-300	150-300	300-600	600-900	600-950
Lifting capacity	t	4	7	14	32	32
Possible support frame		Side boom				
Ropes each Cradle	psc	2				
Wheels each Cradle	psc	24	24	20	24	20
Total weight	kg	145	170	750	1655	1690
<b>MEASUREMENTS AND WEIGHT OF TRAVERSE</b>						
Lenght	mm	622	622	1135	1490	1550
Width	mm	620	650	950	1355	1355
Height	mm	300	300	530	550	550
Weight	kg	115	120	430	735	750
<b>MEASUREMENTS AND WEIGHT OF ROPES</b>						
Length of one rope	mm	6230	6245	11350	11350	11350
Total weight	kg	30	50	320	920	940
<b>Article no.</b>		<b>40700</b>	<b>40700S</b>	<b>40701</b>	<b>40702</b>	<b>on request</b>

Mistakes and changes are reserved

## TECHNICAL SPECIFICATION **CRADLES 30-42" - 48-60"**

Unit		Model				
		30-42"	32-40"	36-48"	40-56"	48-60"
Application		Lift and lower a pipeline with a side boom				
<b>GENERAL</b>						
Pipe size	inch	30-42"	32-40"	36-48"	40-56"	48-60"
Pipe size DN	mm	750-1050	800-1000	900-1200	1000-1400	1200-1500
Lifting capacity	t	45	45	45	52	60
Possible support frame		Side boom				
Ropes each Cradle	psc					
Wheels each Cradle	psc	28	28	28	32	32
Total weight	kg	2045	2040	2180	2480	2520
<b>MEASUREMENTS AND WEIGHT OF TRAVERSE</b>						
Lenght	mm	1700	1700	1850	2000	2180
Width	mm	1475	1475	1480	1480	1480
Height	mm	590	590	1000	1000	1000
Weight	kg	965	960	1100	1240	1280
<b>MEASUREMENTS AND WEIGHT OF ROPES</b>						
Length of one rope	mm	14000	14000	14000	14700	14700
Total weight	kg	1080	1080	1080	1240	1240
<b>Article no.</b>						
		on request	on request	40703	on request	40704

Mistakes and changes are reserved



# VACUVIETZ

Pipelines consist of many juxtaposed pipes.

Each of them have to be loaded, unloaded and arranged on the pipeline route at least once.

Deploying belt slips, cables or chains as lifting tackle presents some serious drawbacks: their use is time-consuming and requires a lot of manpower, not ideal regarding work safety and can also affect the coating of the pipes. The Vacuvietz product series has been developed to allow pipes to be lifted without these drawbacks. To do this, the vacuum lifter is combined with a suction pad suitable for the load.

By creating a vacuum between the load and the suction pad, loads of up to 25 t can be lifted with the Vacuvietz, depending on the machine model.



To lift loads that are longer than 12 m or extremely heavy, we work with several suction pads, which are connected to the basic Vacuvietz device via an interim lifting beam.

The Vacuvietz and suction pad thereby function as load-carrying equipment that can be connected to the hoisting machine either via a crane hook or via a digger connection with a rotator. This technology is proven and safe. For example, if the engine breaks down, the system will hold the vacuum long enough to set the load down safely.

The functions of the vacuum lifter are controlled remotely. Large indicator lights and manometers on the Vacuvietz also allow it to be operated from some distance away – for example, from the driver's cab of the digger that is functioning as hoisting machine.

The machines of the Vacuvietz series are available with an electric drive (400V, with three-phase A.C. current) for use for example in factory halls. For a self-powered version, e.g. on the building site, the devices with diesel engines are recommended. VIETZ produces the devices of the Vacuvietz series with a load capacity of 12, 16, 20 or 25 t.

Suction pads for all standard pipe sizes are available, and equally for e.g. prefabricated concrete parts or similar loads. Changing the suction pads is extremely quick and easy, so it's no problem to use one machine with several pipe sizes.

# TECHNICAL SPECIFICATION VACUVIETZ

Unit		Model			
		12 D	16 D	20 D	25 D
Application		Adequate for all Vietz suction pads (Single, Vario, Twin or with a traverse)			
<b>GENERAL</b>					
Lifting capacity	t	12	16	20	25
Type of power		Diesel engine			
Possible working machine		Crane, side boom, excavator			
Connection to the Vacuvietz		Center			
Distance between the crane hooks	mm	-			
<b>MEASUREMENTS AND WEIGHT</b>					
Length	mm	3450	3450	3450	3450
Width	mm	850	850	850	920
Height	mm	810	810	810	830
Weight (without equipment)	kg	1150	1200	1400	1500
<b>POWER UNIT</b>					
<b>both engines apply for all diesel Vacuvietz</b>					
Engine		Yanmar L100N6FJ		Yanmar L100V	
Rotational speed	rpm	3600		3600	
Power	kW/hp	7,4 / 10		6,8 / 9,3	
Displacement	ccm	435		435	
Emissions class		-		EU Stage V	
Fuel tank	l	45			
Vacuum pump		Busch Mink Typ MM 1102 BV			
Vacuum pump type		Rotary piston vacuum pump			
Norminal pumping flow rate	m³/h	135			
<b>Article no.</b>		<b>47007L</b>	<b>47001L</b>	<b>on request</b>	<b>47013</b>
<b>ARTICLE NO. OF EQUIPMENT</b>					
Crane hook*		47300	47300	on request	47310
Telescop bars*		47002			
Adapter for exavator**		47218		on request	
Hydraulic rotator + hoses**		47315A+47218B+47218C		on request	
Arctic-kit		on request			
Remote control		47132M			

\* Telescope bars to be used when working with crane hook against unwanted rotation | \*\* will be client-specific made / delivered / Have to be used together  
Mistakes and changes are reserved



# TECHNICAL SPECIFICATION VACUVIETZ

Unit	Model					
	12 E - 1 H	16 E - 1 H	25 E - 1 H	12 E - 2 H	16 E - 2 H	25 E - 2 H
Adequate for all Vietz suction pads (Single, Vario, Twin or with a traverse)						
t	12	16	25	12	16	25
Electric motor						
Crane, indoor crane			Crane, indoor crane (with two hooks)			
Center			left & right			
mm	-			3220	4000	3300
mm	3500	4020	3500	3550	4400	3620
mm	760	680	760	770	680	760
mm	1400	1400	1320	1100	1290	1320
kg	900	1250	1200	1150	1280	1100
Electric motor, integrated in the vacuum pump (asynchronous motor)						
rpm	3000					
kW/hp	2,8 / 3,8					
ccm	-					
l	-					
Busch Mink MM 1102 BV 50 Hz (400 V)						
Rotary piston vacuum pump with a electric motor						
m³/h	110					
	<b>47310E</b>	<b>47001E</b>	<b>on request</b>			
incl.						
-						
-						
-						
-						
47132M						

\* Telescope bars to be used when working with crane hook against unwanted rotation | \*\* will be client-specific made / delivered / Have to be used together  
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# VFT

Large-format pipes made from thermoplastic material are welded using butt welding technology.

The butt welding machine is bulky and takes up so much space that, for large-format pipes, it makes sense to mount it securely on a mobile platform.

The hot plate requires electricity. Retracting and guiding the pipes along the butt welding machine is made considerably easier by hydraulic components. The welding should be carried out under controlled conditions and be documented.

And to make the welding operations more independent from weather conditions, it would be advisable to perform them under a roof.



All these thoughts occurred to us, so we developed the machine series VFT. The VFT combines a working hydraulics system for the tracked running gear and the hydraulic components, a generator for the electric power supply, a spacious, air-conditioned cabin, which contains the butt welding machine including plane and hot plate, and front and back arms for grabbing, positioning and placing the pipe. The operator moves the machine from the cabin using a single-handed control. The second hand thus remains free for operating the other machine components.

The VFT means that fewer people are needed at the construction site, while the number of welds performed per day increases. The welding parameters per weld can thereby be gathered and stored via data logging.

The VFT 500 is able to process pipes with outer diameters of 180 to 500 mm by using insets for the butt welding machine. The application area of the VFT 900 covers pipe diameters between 340 and 900 mm.

# TECHNICAL SPECIFICATION VFT 500

		Unit	TYPE 500
Pipe sizes	inch	For 6" IPS to 20" OD (HDPE Pipe)	
<b>ENGINE</b>			
Type		International	EU
Fuel		TCD 2013 L04 V2	TAD571VE
No of cylinders	pcs	diesel	diesel
Configuration		4	4
Displacement	l	inline-four	inline-four
Cooling		4.8	5.1
max. Power	kW/hp	liquid	liquid
Working rotational speed	rpm	129 / 175 @2300 rpm	129 / 175 @2300 rpm
Emission class		1500	1500
Electrical system	V	EPA Tier 3 / EU Stage III A	EU Stage V
Onboard control system			24 DC
<b>BUTT WELDING MACHINE</b>			Vietz VCU
Type		McElroy	
Pipe sizes (min. - max.)	mm	PitBull® 500	
Available inserts*	mm	180 - 500	
Heater power	W	180   200   219   225   230   250   273   280   282   315   324   335   340   355   389	
Pivoting (Facing, Heating)		400   406   442   450   457   495   500	
Cylinder force option		4000	
<b>GENERATOR</b>		Three-phase synchronous brushless 2 pole	
Electrical power	kVA	hydraulic	
Frequency @3000 rpm	Hz	Medium force	
<b>COMPRESSOR*</b>		Rotorcomp screw compressor	
Type**		EVO3-NK	
Operating pressure air	bar / psi	10 / 145	
Volume flow	m³/min	2	
<b>UNDERCARRIAGE</b>			
Track chain type		B2	
Top rollers   Bottom rollers	pcs	2   9	
Gauge	mm	3310	
Triple grouser shoes width	mm	500	
Ground pressure	kg/cm²	0,44	
Hill climbing capacity	°	30	
Low speed   High speed	km/h	3,6   4,9	
<b>TANK CAPACITY</b>			
Diesel	l	300	
Hydraulic	l	240	
<b>HEATABLE CAB</b>			
Rollover protection system (ROPS)		Standard	
Removal welding unit from cabin		Standard	
<b>AIR CONDITION</b>		Konvekta Thermo Systems	
Under floor Condenser & Evaporator		B76 & R134a	
Air volume	m³/h	1800	
Cooling capacity	W	9000	
<b>BASIC SPECIFICATIONS</b>			
Dimensions (L x W x H)	mm	13370 x 2850 x 3070	
Operating weight	kg	14800	
Transport dimensions (L x W x H)	mm	11100 x 2850 x 3360	
Transport weight	kg	14500	
Ambient temperature	°C	-20 ... +55	
Special Features		Rear view camera   Tinted windows Two additional power outlets   FM Radio with MP3	
Article no.		<b>38500</b>	

\* optionally available | \*\* other types on request | Mistakes and changes are reserved

# TECHNICAL SPECIFICATION VFT 900

		Unit	TYPE 900
Pipe sizes	inch		For 12" IPS to 36" OD (HDPE Pipe)
<b>ENGINE</b>			
Type			International EU
Fuel			TCD 2013 L06 2V TAD871VE
No of cylinders	pcs		diesel 6 diesel 6
Configuration			inline-six inline-six
Displacement	l		7.1 7.7
Cooling			liquid liquid
max. Power	kW/hp		200 / 272 @2300 rpm 185 / 252 @2200 rpm
Working rotational speed	rpm		1500 1500
Emission class			EPA Tier 3 / EU Stage III A EU Stage V
Electrical system	V		24 DC
Onboard control system			Vietz VCU
<b>BUTT WELDING MACHINE</b>			<b>McElroy</b>
Type			1236
Pipe sizes (min. - max.)	mm		340 - 900
Available inserts*	mm		340   350   355   400   450   500   560   630   710   800   900
Heater power	W		20461
Pivoting (Facing, Heating)			hydraulic
Cylinder force option			Medium force
<b>GENERATOR</b>			<b>Three-phase synchronous brushless 4 pole</b>
Electrical power	kVA		45
Frequency @3000 rpm	Hz		50
<b>COMPRESSOR*</b>			<b>Rotorcomp screw compressor</b>
Type**			EVO3-NK
Operating pressure air	bar / psi		10 / 145
Volume flow	m³/min		2
<b>UNDERCARRIAGE</b>			
Track chain type			D4
Top rollers   Bottom rollers	pcs		4   15
Gauge	mm		5140
Triple grouser shoes width	mm		600
Ground pressure	kg/cm²		0,44
Hill climbing capacity	°		30
Low speed   High speed	km/h		1,8   3,1
<b>TANK CAPACITY</b>			
Diesel	l		450
Hydraulic	l		500
<b>HEATABLE CAB</b>			
Rollover proection system (ROPS)			Standard
Removal welding unit from cabin			Standard
<b>AIR CONDITION</b>			<b>Konvekta Thermo Systems</b>
Under floor Condenser & Evaporator			B76 & R134a
Air volume	m³/h		1800
Cooling capacity	W		9000
<b>BASIC SPECIFICATIONS</b>			
Dimensions (L x W x H)	mm		17430 x 4000 x 3740
Operating weight	kg		28000
Transport dimensions (L x W x H)	mm		9940 x 3530 x 3680
Transport weight	kg		25500
Ambient temperature	°C		-20 ... +55
Special Features			Pipe rotator front boom   Pipe feeder   Pipe centering   Rear view camera   Tinted windows Two additional power outlets   FM Radio with MP3
Article no.			<b>38502</b>

\* optionally available | \*\* other types on request | Mistakes and changes are reserved

**vietz**®

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