

R1 41 01 02 Technical Directive

Pneumatics directive for suppliers, erection companies, managers and users Part 2: General

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Intended for the Location IJmuiden

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2.1.1.art.a. Validity	
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In general must be met the requirements as in EN 983 "Safety and machinery" Safety R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General









Also valid are:	
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- the general requirements of Corus	like delivery regulations, assembly regulations and
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welding regulations, etc.;	
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 the especially for a project formula 	
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To the offer belongs a pneumatic circuit diagram with parts list and if necessary an electric



diagram, sequence diagram and a prescription. These diagrams are object to approval.



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The system should be delivered with a complete set of drawings, diagrams and parts list,



covering the entire installation as buil	t, together with complete parts list of all applied
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parts.	
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– <u>General</u>	
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The whole should be well preserve	d and all connection ports should be dustproof
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– <u>Pipes</u>		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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The pipes should be well provided	with good cap.
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– <u>Cylinders</u>	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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The connection openings should be provided with plastic caps.



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Departures from the instructions are quly allowed after consultation with the pneumatic



engineer involved and receipt of written permission. If possible, this consultation should



take place in the design stage, but in any case as early as possible. Allowed departures





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Distribution and nominal pressures:	
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The nominal pressure (PN) is 10 bar.	
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The components of installations should at least be suitable for the nominal pressure.



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- Apart from cylinders, rotating cylinders and air motors with connecting pipes, it is RI 41 01 02 Pheumatics-directive for suppliers, erection companies, managers and users Part 2: General	A most from ordin done	, notatin a avilit	done and ain motors with connecting nines, it is
Preumatics-directive for suppliers, creation companies, managers and users Part 2: General	- Apart from cylinders	s, rotating cylin	
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required to place the remaining pneumatic devices on tables or cabinets at a separate



place outside of the installation inv	olved.
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- Speed control valves should also	be placed on/in these tables or cabinets unless another
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place is called for.	
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 Quick exhaust valves should be n 	ounted directly on the cylinders.
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 When laying pipes, the ease of che 	cking and replacing them should also be taken into
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account even in less accessible place	es.
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– It may be desirable in big installati	ons to attach certain valves in the pipe lines. These
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Hereby the mounting of the components should especially be taken into consideration;



these should be fixed separately and dertainly not suspended in the pipelines. R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General

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- The devices should	be easily accessit	
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a) interchangeability of components without the necessity of disassembling other parts.





b) components which should be **checked** and which should be subjected to other





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c) the rapid repair of leal	kages of couplin	gs.
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2.1.7. Drawings	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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Drawings must meet the specifications as stated in Technical Directive R1 05 80 01E



'Corus Steel drawing regulations'', especially chapter 6: Pneumatic diagrams.



<i></i>	Specification and orac	ring aeialis regi	iraing valve cabinets for pheumatic systems
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Α	Π	pneumat	ic val	lves s	houl	d	be mounted	. 1n	a cabinet.



218 art h	Specification sheet	
2.1.0.al (.D.	specification sheet	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
		Part 2: General
		Turt 2. General
	corus	
	COFUS	

For a standard	specification	sheet see	next two pages.



2.1.8.art.c. Typicals		
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		a normanica managara and ware
		companies, managers and users
		Part 2: General
	Corus	
	corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



Concerns: Specification sheet pneumatic va	lve cabinets.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Belonging to scheme nr.	and
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
Corus	

parts list nr.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Cabinet nr.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Design according Technical Directive R1 41 01 09.	R1 41 01 02 Pneumatics-directive for suppliers, erection	
	companies, managers and users Part 2: General	
corus		

General		
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General	
Corus		

Location []	inside a building] open air R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	corus	

Material	[] sheet steel	[]	plastic	RI 410102
			Pneur	matics-directive for suppliers, erection companies, managers and users Part 2: General
				Part 2: General
	ſ			
	coru	ls		

Coating	for inside	open air	low % SO2	
			R1 41 01 02	
		Descrip	RI 41 01 02	
		Pneu	matics-directive for suppliers, erection	
			companies, managers and users Part 2: General	
			Part 2: General	
	-			
	Corus			
	corus			
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II	open air high % SO2
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
corus	
corus	

Colour	[] RAL 10	13(creamy white)	R1 41 01 02
			Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Corus	
		corus	

RAL 6021(grey/green	Υ
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

AL 7032(grey)	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Options	[] rain roof	Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	

hoist	ing eyes	according drawing
		R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		companies managers and users
		Part 2: General
		Turt 2. General
	corus	
	corus	
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drawing box.	brackets
	R1 41 01 02
	Pneumatics-directive for suppliers erection
	companies managers and users
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	
corus	

Protection class	[] IP 55 (std.)	[] R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users
		Part 2: General
	C	
	Corus	s

Γ	Locks	T-bar (large model)	
	LUCKS		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		corus	

		R1 41 01 02 Pneumatics-directive for suppliers, erection	
		Pneumatics-directive for suppliers, erection	
		r neumanes-uncenve for suppliers, election	
		companies, managers and users Part 2: General	
		Part 2: General	
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	Corus		
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Electrical provisions	R1 41 01 02	
	Pneumatics-directive for suppliers, erection	
	companies, managers and users Part 2: General	
6		
Corus		

Lighting	[] none	
	[] none	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	C	rus
	со	rus

(impact proof)	with door switch	
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	corus	

Plug socket with rim earthing	With tumbler
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Falt 2. General
corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Cable trays	[] closed	[] open
		R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users
		Part 2: General
	Coru	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



Location of details:



Left	I	Right	Upper side
		<i>G</i>	R1 41 01 02
		Pneumatics-di	rective for suppliers. erection
		compani	es, managers and users
		1	rective for suppliers, erection es, managers and users Part 2: General
_			
coru			
cort	JS		
L			

Door hinges	[]	[] R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General

Corus

г	Incoming pipes		<u>۲۱</u>
	mooning pipes	[]	[] [] R1 41 01 02
			Pneumatics-directive for suppliers, erection
			companies, managers and users
			companies, managers and users Part 2: General
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		Corus	
		corus	
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Outgoing pipes	[]	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	
	-	

-	Departion nings		[]F]
	Deaeration pipes	[]	
			R1 41 01 02 Pneumatics directive for suppliers erection
			companies managers and users
			Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		C	
		Corus	
l			

lг	Terminal boxes	<u> </u>	r f1
1	Terminar boxes	[]	R1 41 01 02
			Pneumatics-directive for suppliers, erection
			companies, managers and users
			companies, managers and users Part 2: General
		corus	
L			

1		
	Miscellaneous	R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General

Corus

	1	
Deaeration with:	[] dampers	[] environmental filter RI 41 01 02 (oil separator)
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	
	corus	

Spare positions	quantity	(including pneumat R pi/i/i/g)1 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	corus	

R1 41 01 02



Pi	iping	Steel	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	(Corus	

Couplings steel, hot dip galvanised / yellow chroR4te41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



Codification of pipe connection outside the cabinet	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Cabinet sizes approximately	ca x _	x mm (bx R xld)41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	

Special requirements



 R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus



RI 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2; General		T	
Pneumatics-directive for suppliers, erection companics, managers and users Part 2: General			
Pneumatics-directive for suppliers, erection companics, managers and users Part 2: General			R1 41 01 02
companies, managers and users Part 2: General			Pneumatics-directive for suppliers erection
			companies managers and users
			companies, managers and users
			Part 2: General
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€ COTUS			
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		corus	

Cabinet design and manufacturing according Corus	s drawings 802.633 t/m 802.636 R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
ß	
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.2.	Compressed air: quality, conne	ection and conditioning
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
1		
	Corus	
	corus	

Compressed air will be generated on a number of locations at the Corus area and



distributed with a piping network. For	a rising number of plants dry air will be supplied.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

If special requirements are needed, they should be specified according British Standard BS



4545, Part 3, Section Two, Table 1.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Conditioning of compressed air is therefore limited to filtering, because lubrication is in R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



genera	l not necessary.





Filters must be built in each ashingt it	the supply line
Filters must be built in each cabinet in	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	



R1 41 01 02 Pneumatics-directive for suppliers, erection
companies, managers and users Part 2: General



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.3.	Energy control		R1 41 01 02
			Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Corus	

2.3.1. General	
	R1 41 01 02
	Pneumatics_directive for suppliers_arection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Dort 2: Conoral
	Part 2: General
Corus	
Corus	

The valves for control and driving should be grouped in one or several control panels and



tables or in boxes in a survey table and logical way. Each panel, table or box shall be



provided with an isolating valve for sal	fety.
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

The mounting of the control valves should be executed according to the base plate R1 41 01 02







The bores in the mounting faces of the control valves should be executed in accordance



with paragraph 2.3.2, which correspon	hds to designations 1 through 6 of the international
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users
	companies, managers and users Part 2: General
6	
corus	

standard ISO 5599/1.	
	R1 41 01 02 Pneumatics_directive for suppliers_erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
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coru	S

In the base plate no opening for an electrical connection may be present. Deviations from R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General

corus

the above mentioned patterns are only allowed after agreement of the pneumatic engineer



involved.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

The valves should be provided with splenoids with a voltage of 24 VDC and a maximum



power of 10 W.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Note:	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	
corus	

For limited expansions and replacements in existing installations, the application of a



driving voltage of 110 V~ is only allowed if the modification to 24 V= is not economical.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Blind holes in blocks and base plates should be closed with plugs according to Technical R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



Directive R1 41 01 07E, paragraph 7.	10.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
corus	

The centre distance of thread holes in blocks and base plates for screw-in couplings of the R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



pipes to be connected should be made such that no special tools are required to mount



them.	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Design of thread holes for screw-in couplings according to Technical Directive



R1 42 01 02E, part 2: General.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
corus	

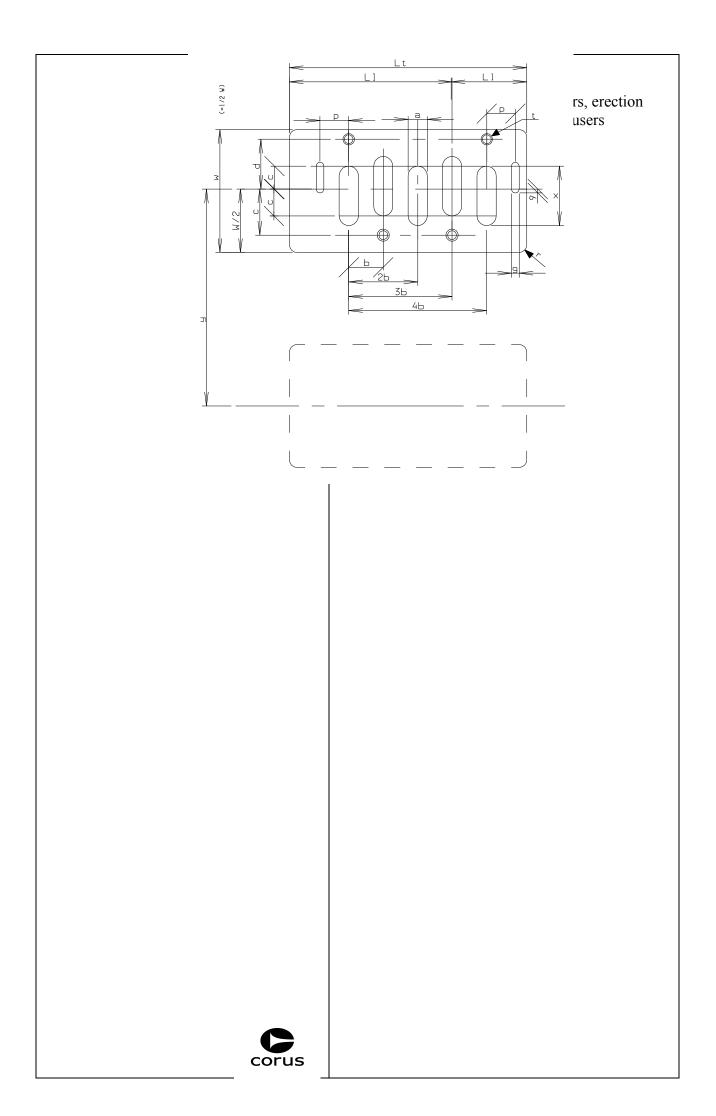


	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.3.2.	Holes pattern for base plate mounting	g
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	Corus	
	corus	

2.3.2.art.a.	Hole patterns for ISO 1 throu	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	corus	
	corus	
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Figure 2.1	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	



Scheme 2.1	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Dimensions in mm	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



Size	a	b	с	d	g ¹⁾	L	Lt	р	r	$t^{2)}$	01	W	X	у	groov
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								Ĺ	ompan	ies, man Part 2: (Ge	neral	u usei	3	
				CC	Drus										

	 								max.		min		3)	e surf.
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							Pn	euma	tics-di	rective for es, manag Part 2: Ge	suppli	lers, e	rectio	on
								CC	mpam]	es, manag Part 2: Ge	neral	i user	5	
					-									
					Drus									
				cc	orus									

											(mm^2)
					1		R1 41 01	02	1		
				Pı	neuma	tics-di	rective for	suppl	iers, ei	rection	on
					cc	mpani	es, manag Part 2: Ge	ers and	a users	5	
						1		licial			
			Drus								
		cc	orus								
]

R1 41 01 02 Preumatics-directive for suppliers, erection companies, managers and users Part 2: General	1 4,5 9 9 14 3 325	5 65 8,5 2,5 M5x0,8 38 16,5 43 70
		R1 41 01 02 Pneumatics-directive for suppliers erection
		companies, managers and users
Corus		Part 2. General
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<u>Corus</u>		
Ecorus		
<u>Ecrus</u>		
Corus		
	corus	

2	7	12	10	19	3	40,	5	81	10	3	M6x1,0	50	22	56	1	43
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								Pn	euma	ntics-di	rective for	· suppl	iers e	rectio	on	
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										Jinpan	ies, manag Part 2: Ge	noral	u user	3		
											Part 2: Ge	neral				
					Porus											
				co	rus											
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3 10 16 11,5 24 4	53 106 13 4 M8x1,25 64 29 71 269
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
corus	
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

T.) Т	he minimum	depth	of	the	groove v	vith	breadth	i g 1s g.





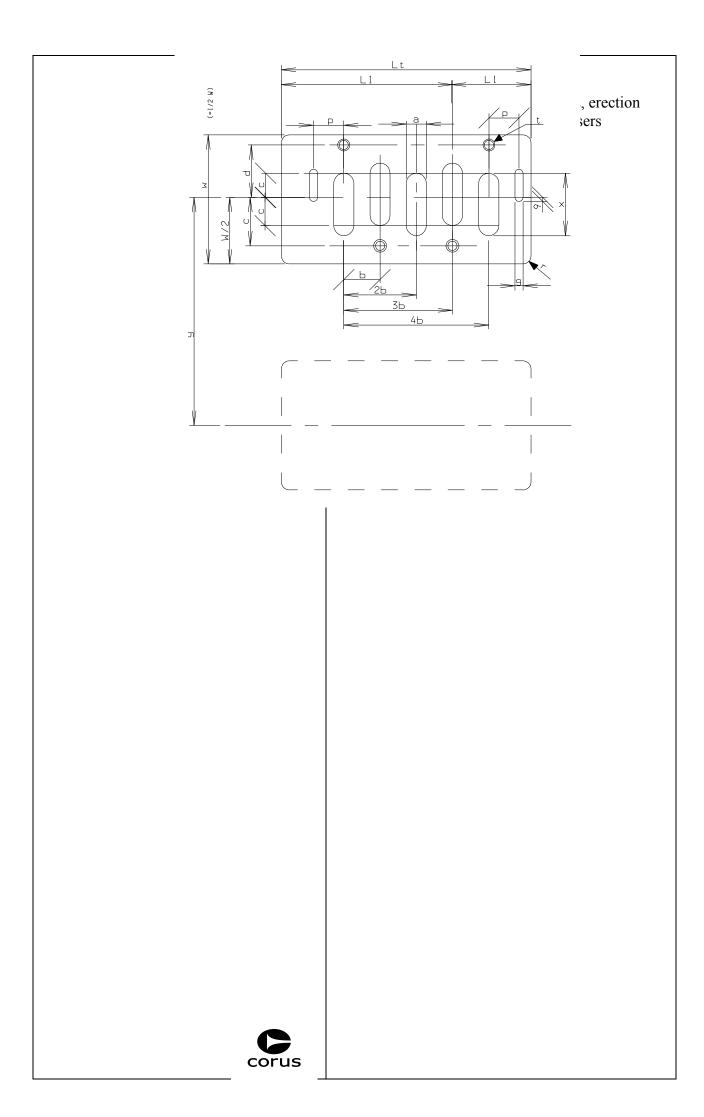
3) y is de minimum centre distance at the application of ganged sub plates.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

1.3.2.art.b.	Hole patterns for ISO 4 throu	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	corus	
	COFUS	

Figure 2.2	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	



Scheme 2.2	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Dimensions in mm	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Size	a	b	c	d	g ¹⁾	L ₁	L ₂	Lt	р	r	t ²)		W	X	y ³⁾	groove
	<u>.</u>		<u>.</u>	<u>.</u>	<u> </u>			Pne	umati	cs-dir	RI 4 ective	fo	r supr	oliers,	erect	tion
									con	npanie P	es, ma Part 2:	nag Ge	gers a eneral	nd us	ers	
					C											
					Cor	us										

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<u>Corus</u>															
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							Р	art 2: Ge	eneral			
			Cor	us								

R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
Part 2: General



5 17 25 18 34 5 79,5	91,5 171 19 5 M10x1,5 88 42 97 652
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
Corus	
corus	
<u> </u>	

R1 41 01 02 Preumatics directive for suppliers, erection part 2: General	6	20	30	22	44	5	95	105	200	22,5	5	M10x1,5	108 50,5	119	924
Preumatics-directive for suppliers, erection companies, managers and users Part 2: General												R1 41 0	1 02		
companies, managers and users Part 2: General									Pneu	mati	cs-dir	ective fo	r sunnliers	erecti	ion
Part 2: General									1 neu	aan	co-un		r suppliers		1011
										COII	ipaine	s, manag		sers	
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1) The minimum depth of the groove	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
	Turt 2. General
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Corus	
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2) T	he min	1mum 1	thread	dep	th	is twi	ice t	he	bol	t c	liamet	ter.



3) y is the minimum centre distance at the application of ganged sub plates.





	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.4.	Energy conversion (actuators)	
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	

<i>2.4.1</i> .	General	
		R1 41 01 02
		K1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		companies, managers and users
		Part 2: General
	Corus	
	corus	

These instructions apply for all pneumatic installations at Corus, without prejudice to the R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



validity of:	
validity of:	D1 41 01 02
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
Corus	
corus	5



 the general instructions of Corus st 	ich as delivery conditions, assembly instructions,
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	

welding instructions, etc.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	

- the special requirements specified	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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COFUS	

2.4.2. Construction of the cylinders R1 41 01 0 Pneumatics-directive for su companies, managers Part 2: Gene	2 appliers, erection s and users ral
Pneumatics-directive for su companies, manager Part 2: Gene	ppliers, erection and users ral
Companies, managers Part 2: Gene	s and users ral
Part 2: Gene	ral
Part 2: Gene	rai
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ISO-cylinders PN 10 according ISO (431 and VDMA 24562 part 1/2 with a bore of 32 to



320 mm are applied.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
corus	
COLUS	

A choice should be made from follow	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	



 End angles mounting (MS1-ISO 6. 	841-figure 6).
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
	rait 2. General
Corus	
corus	

 Cap detachable clevis mounting (MP2-ISO 6431-figure 4). 	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	

 Intermediate trunnion (MT4-ISO 6431-figure 7). 	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	
corus	

– Ball bearing at bottom side (not in	ISO).
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	

 Clevis with ball bearing on the pisto 	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	



When determining the cylinder bore it should also be taken into account that 8 to 10% of





	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

The standard series according to Technical Directive R1 41 01 05E should be adhered to R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



for the dimensions.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	



Manufacture: Norgren, Parker.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	





scheme.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Drus

The series is based on ISO 4349 supplemented with series 10 according to ISO 497.





Schome 2.3	
Scheme 2.3	D1 41 01 02
	R1 41 01 02 Pneumatics directive for suppliers erection
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
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corus	

Dimensions in mm	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

R1 41 01 02 Pneumatics-directive for suppliers, creetion companies, managers and users Part 2: General	100 125 16	0 200	25 50 80
Pneumatics-directive for suppliers, erection companies, managers and users	· · · · ·	·	
companies, managers and users			Pneumatics-directive for suppliers, erection
Part 2: General			companies, managers and users
			Part 2: General
corus		Corus	

1000	1250	1600	2000	250	315	400	500	630	800
						R141	01 02		
				Dno	umation	lirective	for suppli	are arout	ion
				rite	umanes-(ioi suppli	iers, erect	1011
					compa	mes, mar	nagers and General	users	
						Part 2:	General		
			orus						
		co	rus						
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			2500		+ +			
	 	I			R1 41 (01.02		
			Pne	umatics-	directive f	or supplie	ers erecti	on
			1 110	compa	directive for nies, mana Part 2: C	or supplic	users	011
				compa	Part 2. C	leneral	users	
					1 ult 2. C	leneral		
		Drus						
		n us _						
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



4.3.	Technical requirements	R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	

- The cylinders should pass a pressure test of 1,5x the nominal pressure. RI 41 01 02 Pheumatics-directive for suppliers, erection companies, managers and users Part 2: General		
Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General	 The cylinders should pass a pr 	
		Pneumatics-directive for suppliers, erection
		Part 2: General
<u>Ecrus</u>		
Corus		
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Ecorus		
Ecrus		
Corus		
	corus	5

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

 The piston rods should be entirely 	made of stainless steel.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

 The cylinders should be provided 	with a reliable, adjustable cushioning.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

The cylinder ports should be female threaded according ISO 228-1. RI 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General	 The cylinder ports should be femal 	e threaded according ISO 228-1
Preumatics-directive for suppliers, erection companies, managers and users Part 2: General	The cymider ports should be teman	
companies, managers and users Part 2: General		
		companies, managers and users
		Dart 2: General
		r att 2. General
	_	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



2.5.	Measuring- and control equip	nent
	~ * *	R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
		Part 2: General
	Corus	

Pneumatic systems may contain pressure switches for electrical control and interlock. See



Technical Directive R1 41 01 07E, describing switches with one contact or four contacts.



The last one is an electric device w	rith display.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

'Indicating' manometers will be described in Technical Directive R1 41 01 03E.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

If manometers must be applied for the process, than use bourdontype with a diameter of



100 mm. and an appropriate span. Here also an electronic pressure switch is a good



solution.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



2.6.	Energy distribution	R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	C0	orus

2.6.1. General	
	R1 41 01 02 Pneumatics_directive for suppliers_erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
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Corus	
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This Technical Directive lists the requirements for materials, assembly, mounting and



finishing of pipe systems for the distribution of energy for pneumatic systems.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

The following scheme should be employed for the correct choice of connecting elements.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Scheme 2.4	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Material
R1 41 01 02
Pneumatics-directive for suppliers, erection
companies, managers and users
Part 2: General
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Air conditioning	Environment	ST. 35 AISI AISI St. 35
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	corus	
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	condition	NBK	304	316	galvanised
·		· · ·	R1 41 01	02	
		Drammatia	KI 41 01	02	anastian
		Pheumatic	s-directive for	suppliers,	erection
		com	oanies, manag	ers and use	rs
			oanies, manag Part 2: Ge	neral	
	Corus				

	DRY	Aggressive		X	x	
	2	11881000110	R1 41 01			
			Pneumatics-directive for	suppliers	erection	
			companies manag	ers and use	rs	
			companies, manag Part 2: Ger	neral		
		corus				
		corus				
L						

Not aggressive	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
Corus	
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[MOISTURED	Aggressive	X X
	MOBIURED	11551000100	
			R1 41 01 02 Proumation directive for suppliers praction
			Pneumatics-directive for suppliers, erection
			companies, managers and users Part 2: General
			Part 2: General
		corus	
		corus	
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Not aggressive	X X X
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	companies, managers and users Part 2: General
corus	
corus	



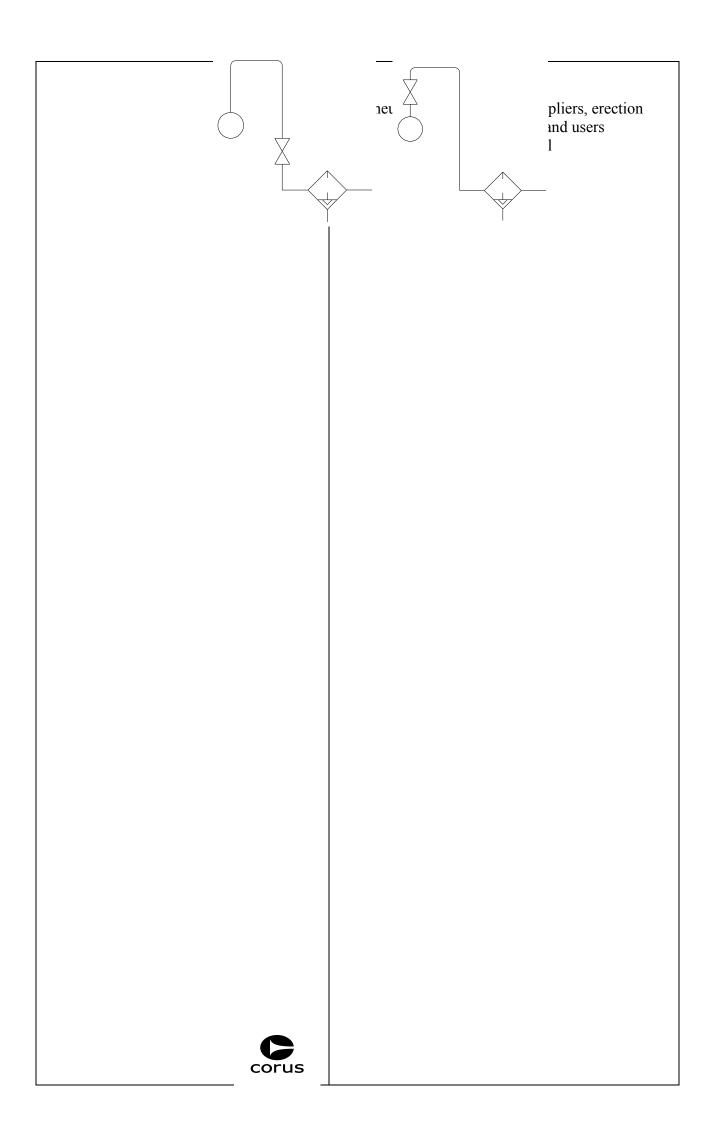
The piping of a pneumatic system is donnected to the central compressed airpipe according



		~						~ ~			-		
t	he	figures.	After	the sh	ut-off	val	ve a	ti.	ter	must	be p	laced	Ι.



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

	12	Figure 3.4
FI	gure 2.3	Figure 2.4
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies managers and users
		companies, managers and users Part 2: General
		Turt 2. General
	Corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Between a system shut-off valve and the directional control valves, and also after each R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General

reducing valve, a manometer have to be mounted, plus a T-coupling where a test point can R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General



be connected later.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies managers and users
	Part 2: General
corus	
corus	

162	Testing		
4.0.2.	Tesung		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		corus	







263	Draining	
2.0.3.	Draming	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2. General
	Corus	

lt must l	be possi	ble	e to d	rain a	all	pipes of	on t	heir	lowest	point.



This drain must be equipped with a ba	ill valve.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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corus	

2.6.4.	Connections		
	Connections		
			R1 41 01 02
			Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
			companies, managers and users
			Part 2: General
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		corus	
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The following scheme should be employed for the correct choice of connecting elements.





Schome 7.5	
Scheme 2.5	
	R1 41 01 02 Pneumatics-directive for suppliers erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	

24° taper Th	read flange Coupling type RU 60° Components
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	
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according	Technical Directive	con	hection	universal	
U U				R1 41 01 02	
			D		
			Pneun	natics-directive for suppl	liers, erection
				companies, managers an	d users
				Part 2: General	
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R1410107E R1410102 R1410107E R1410102 Preumatics-directive for suppliers, erection companies, managers and users Part 2: General	r	<u>n 1 /1 /1 // // // // // // // // // // /</u>	,	
Pncumatics-directive for suppliers, erection companies, managers and users Part 2: General		KI 41 01 0/E		
companies, managers and users Part 2: General				
Part 2: General				Pneumatics-directive for suppliers, erection
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<u>Corus</u>				
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<u>Corus</u>				
<u>Ecorus</u>				
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Ecorus				
<u>Corus</u>				
Corus				

Steel	Stainless steel	Galvanised	Hoses	connection BSP
		Pneun	R1 41 01 02 natics-directive for supp	liers, erection
			companies, managers ar Part 2: General	nd users
	-			
	corus			

precision pipe precision pipe steel pipe	
R1 41 01 02	
Pneumatics-directive for suppliers, erection	on
companies, managers and users Part 2: General	
corus	

I		I I	1	ı		
	10 x 2	10 x 2	G 1/4"		G 1/4"	
			R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General			
		C				
		corus				

12 x 2	12 x 2		G 3/8"	G 3/8"
12 X 2	12 X 2		R1 41 01 02	0.5/8
		Pneum	natics-directive for supp	liers erection
		1 noun	companies managers ar	nd users
			companies, managers ar Part 2: General	
	corus			
				-

				R1 41 01 02	
			Pneun	natics-directive for supp	liers, erection
				companies, managers a Part 2: General	ndusers
				$\frac{1}{2}$	lid users
				Part 2: General	
	corus				
	corus	S			
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	18 x 2	18 x 2		G 5/8"	G 1/2"
		I		R1 41 01 02	
			Pneun	natics-directive for supp	liers, erection
				companies, managers a Part 2: General	nd users
				Turt 2. General	
		Corus			
<u> </u>			<u> </u>		

22 x 2	22 x 2		G 3/4"	G 3/4"
			R1 41 01 02	
		Pneun	natics-directive for suppl	liers, erection
			companies managers an	d users
			companies, managers an Part 2: General	u users
			Part 2. General	
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	corus			

28 x 2	28 x 2		G 1"	G 1"
	I		R1 41 01 02	1
		Pneun	natics-directive for suppl	liers, erection
			companies, managers an Part 2: General	d users
			Fait 2. Ocherai	
	Corus			

35 x 2	35 x 2	G 1 1/4" *)	G 1 1/4" *)
		R1 41 01 02 Pneumatics-directive for suppli companies, managers and Part 2: General	ers, erection l users
	Corus		

r	12 2	42 2			
	42 x 2	42 x 2		G 1 1/2" *)	G 1 1/2" *)
			Dnoum	R1 41 01 02 natics-directive for suppl	iers erection
			1 liculi	companies, managers and	d users
				Part 2: General	d d3015
		-			
		corus			
		corus	5		
L					

		4	8,3 x 3,25		
				R1 41 01 02	
			Pneun	natics-directive for suppliced and companies, managers and Part 2: General	liers, erection
				companies managers an	nd users
				Part 2: General	
				Tatt 2. General	
	Corus				
	corus	5			

		6	0,3 x 3,65		
	L	1		R1 41 01 02	
			Pneun	natics-directive for sup companies, managers Part 2: Genera	pliers, erection
				Companies, managers	and users
				T art 2. Genera	1
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	corus				
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		6,1 x 3,65	R1 41 01 02	
			\mathbf{R}	
		Pneun	natics-directive for suppl companies, managers an Part 2: General	iers, erection
			companies managers an	d users
			Part 2: General	a aborb
			Tart 2. Ocherai	
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		88,9 x 4,05		
		Pneur	R1 41 01 02 natics-directive for supp companies, managers a Part 2: General	oliers, erection nd users
			Tart 2. General	
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	corus	5		

*) to use as an exception.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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2.6.5. Materials	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
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2.6.5.art.a. Pipes		
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	corus	

 for diameters 10-42 mm: 	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
corus	
corus	

pickled, phosphated seamless steel precision pipes according Technical Directive R1 41



01 07E, paragraph 7.3. of stanness	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

R1 41 01 07E, paragraph 7.6.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	
corus	



 for diameters 48.3-88.9 mm: 	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
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corus	
corus	

hot dip galvanised (in and outside) seamless steel pipe according Technical Directive R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General

corus

R1 41 01 07E, paragrap	h78
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
c	corus







Galvanised pipe must be treated with a zinc compound coating after threading.





Always use PTFE tape for fitting	ngs.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	Part 2: General
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2.6.5.art.b.	Connecting elem	ents	
	8		R1 41 01 02
			Pneumatics-directive for suppliers, erection
			companies, managers and users
			companies, managers and users Part 2: General
		Corus	
		corus	
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Use couplings according Technical Directive R1 41 01 07E, paragraph 7.10.





In a non aggressive environment, the use of AISI 304 stainless steel pipe may be



economical, while coating is not requi	red. In that case, couplings may be standard, but
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	
Corus	

fitted with stainless steel cutting rings	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	Part 2: General
Corus	

l.6.5.art.c.	Mounting		R1 41 01 02 Protunatics-directive for suppliers, erection companies, managers and users Part 2: General
		Corus	

For mounting of piping should be used pipeclamps with plastic or aluminium shells



according Technical Directive R1 41	01 07E, paragraph 7.7. Water should not be able to
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
	Fait 2. Ocheral
corus	
corus	

gather itself in the grooves of the clamp shells. To prevent this, fill the groove of the clamp



shell with silicone putty.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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co	rus

4.6.5.art.d.	Connection of pipe to hose and	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		companies, managers and users
		Part 2: General
	corus	
	corus	

Burkhead couplings must be used for	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users
	Part 2: General
corus	
COLUS	

Directive R1 41 01 07E, paragraph 7.	10. and Figure 2.6. The bulkhead coupling must be
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
-	
Corus	
corus	

fixed to the frame with	a rigid constru	ction.
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	

2.6.5.art.e. Hoses	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	
corus	

Hoses according R1 41 01 07E, parag	graph 7.2. are to be applied. Hose connections to
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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Corus	

components must be according Technical Directive R1 41 01 07E, paragraph 7.10.





1.6.6. Cleaning	g of the piping	R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
		Fait 2. General
	Corus	



2.6.7. Mounting	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.6.7.art.a.	Pipe clamps and	support structu	res
			R1 41 01 02
			Pneumatics-directive for suppliers, erection
			companies managers and users
			companies, managers and users Part 2: General
		corus	

Clamps must be mounted according Technical Directive R1 41 01 09E, paragraph 9.1.



Where corrosion presents a serious threat, the welding plates on the brackets must be



welded around all edge	S	
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
	Corus	
	corus _	

Aluminium shells must be used in areas where high temperatures can occur. The clamps



should be mounted directly before and after bends according Figure 2.5 and Figure 2.6.





The maximum distance between clamps must be adhered to for each section.





The support structures for the clamps must be attached to walls where possible and



mounted with anchor bolts according	ng Figure 2.8.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Dert 2: Conoral
	Part 2: General
Corus	
Corus	

2.6.7.art.b.	Centre distances for pipes	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	corus	
	corus	
<u> </u>		1

Couplings or flanges stag	gered application	ation.
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		companies, managers and users Part 2: General
	Corus	
	corus	

Applied clamps according to Technical Directive R1 41 01 07E, paragraph 7.7.







Dimensions in mm	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Outs.	10	12		18	22 28 35 42 48,3 60,3 76,1 88,9
					R1 41 01 02 Pneumatics-directive for suppliers, erection
					companies, managers and users
					Part 2: General
		CO	orus		
		-	-		

	pipe											
-							R	1 41 0	1 02			
					Pneu	matics	s-direc	tive for	r sunnl	liers e	rection	
					1 1100	comr	anies	manad	i suppi iers an	d user	c	
						comp	Dor	1110110g	sors an	u usei	3	
					companies, managers and users Part 2: General							
				orus								
			со	rus								
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 diam.	H										
ululli.						R	1 41 0	02			
				Pneu	imatics	-direct	ive for	r supp	liers, e	rectio	n
					comp	anies, Part	manag	gers ar	nd user	S	
					-	Par	t 2: Ge	eneral			
			Drus								
		-	1 43								

RI 41 01 02 Pneumatics-directive for suppliers, erection companies, market and users Part 2: General	10	-	60	60		╞	60	+	70	70	0	75	75	90	-+	100	105	110
Preumatics-directive for suppliers, erection companies, managers and users Part 2: General		11	1	I	1	1				1	1				I		1	
companies, managers and users Part 2: General									Pneu	imat	tics-	direc	tive fo	or sup	opli	iers, e	rectior	1
										co	mpa	anies,	mana	agers	anc	d user	S	
												Pai	t 2: G	enera	ıl			
C																		
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C																		
C																		
				-	_													
- I					>													
corus				co	rus													

12	8	60		60	70	70	75	75	90	100	105	110
12		00		- 00	70	70		1		100	105	110
					Dra	motio	K	1 41 0	1 UZ	liona	rootia-	
					Pheu	imatics comp	s-arrect	live io	r suppi	liers, el		
						comp	banies,	manag	gers an	a users	8	
							Par	t 2: Ge	eneral			
			Drus									
			1 43									

18				75	75	80	80	80	100	100	115	120
							R	1 41 0	1 02			
					Pneu	matics	-direct	ive fo	r supp	liers e	rection	
					1 1104	comn	aniec	manad	ters an	d user		
						comp	Dom	manag		d user	5	
							Par	t 2: Ge	eneral			
			rus									
		CO	rus									
		-										I

22 80 80 90 100 105 R1 41 01 02 Pneumatics-directive for suppliers, ere companies, managers and users Part 2: General	115 120
Pneumatics-directive for suppliers, ere companies, managers and users	
companies, managers and users	ection
Part 2: General	
corus	
corus	

28						80	90	90	100	105	120	130
							R	1 41 0	1 02			
					Pneu	matics	-direct	ive fo	r sunnl	liers e	rection	
					1 neu	comp	anies	manad	i suppi	d user		
						comp	Dor	1110110g	sors an	d user	3	
							rai	t 2. Ge	merai			
		co	rus									
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33											110	120	150
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						Pneu	imatics	s-direct	.1ve 101	suppi	liers, ei		1
							comp	anies,	manag	gers an	u users	5	
								Par	t 2: Ge	neral			
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			CO	brus									

	42							90	105	110	130	135
-							R	1 41 0	1.02			
					Pnou	matics	-direct	tive fo	r sunnl	liere e	rection	
					1 neu	natios	-unce		i suppi	d usor		
						comp	bannes,	manag		d user	8	
							Par	t 2: Ge	eneral			
			_									
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		 	 1 4 3	-								

 48,3	1	-	-	1	-		<u> </u>		110	115	135	140
46,5								11.0		115	155	140
					P		1. K I	41 0	1.02	ı.	, .	
					Pneu	imatics	s-direct banies, Part	ive for	r suppl	liers, ei	rectior	l
						comp	oanies,	manag	gers an	d users	5	
							Part	t 2: Ge	eneral			
			co	orus								

	60,3										120	135	140
-								R	1 41 0	1.02			
						Pneu	matics		tive fo	r sunnl	iers e	rection	
						1 1100	comm	anios	monor	i suppi	d user	c c c c c c c c c c c c c c c c c c c	
							comp	aiiies, n-	111a11a	gers an eneral	u user	5	
								Par	t 2: Ge	eneral			
				brus									
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76.1	8	1	+	1 1		1				+	155	160
76,1											155	100
					n	<i>.</i> .	1. R		1.02	1.	<i>.</i> •	
					Pneu	imatics	-direct	ive for	r supp	liers, e	rection	
						comp	anies,	manag	gers an	d users	S	
							Par	t 2: Ge	eneral			
			_									
			brus									
			 1 43									

88,9											160
	0					P	1 41 0	1.02			
				D		л 1:	1410	1.02			
				Pneu	matics	s-direc	tive to	r supp	liers, e	rection	
					comp	oanies,	manag	gers an	d user	S	
						Par	t 2: Ge	gers an eneral			
			brus								
		co	rus								



2.6.8.	Assembly examples	
2.0.0.	Assembly examples	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	

4	2.6.8.art.a. Pipe brackets	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	

2.6.8.art.a.1.	Pipe brackets for bends	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	-	
	Corus	
	corus	

Figure 2.5		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	

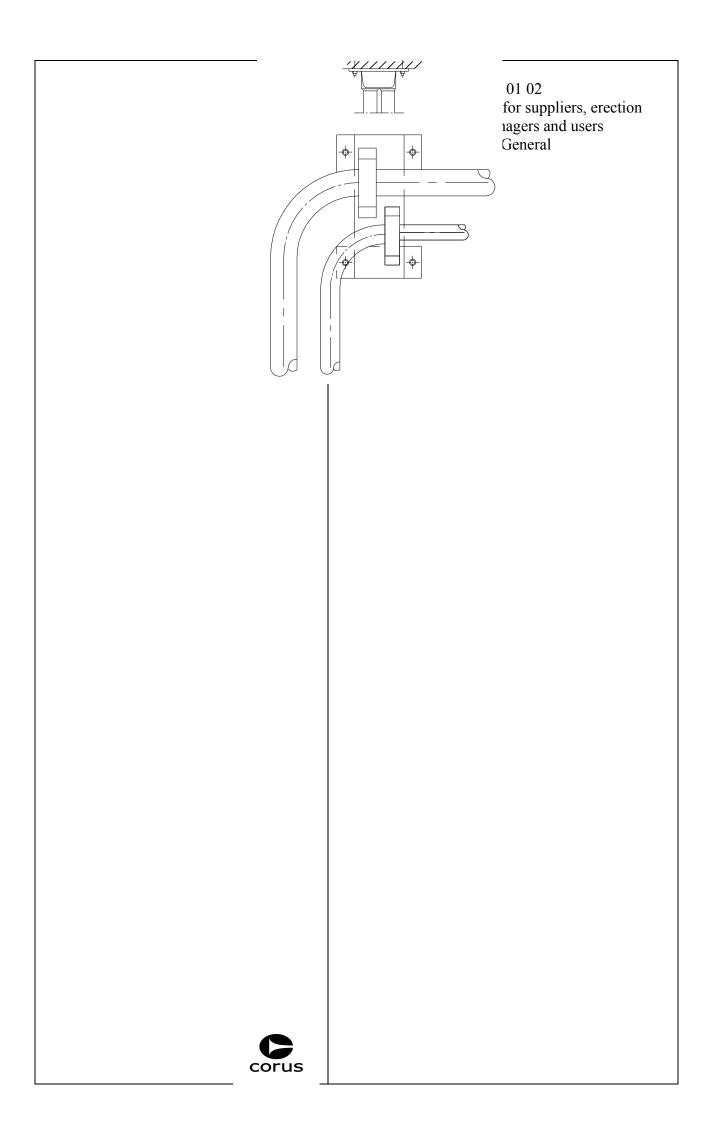
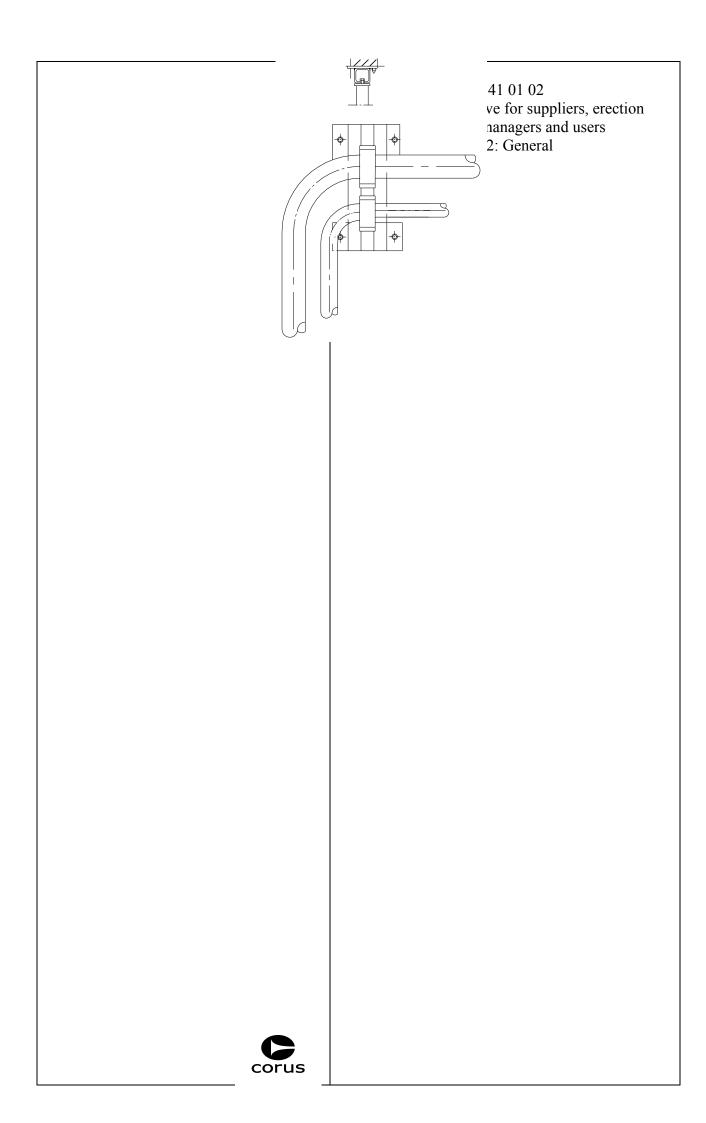
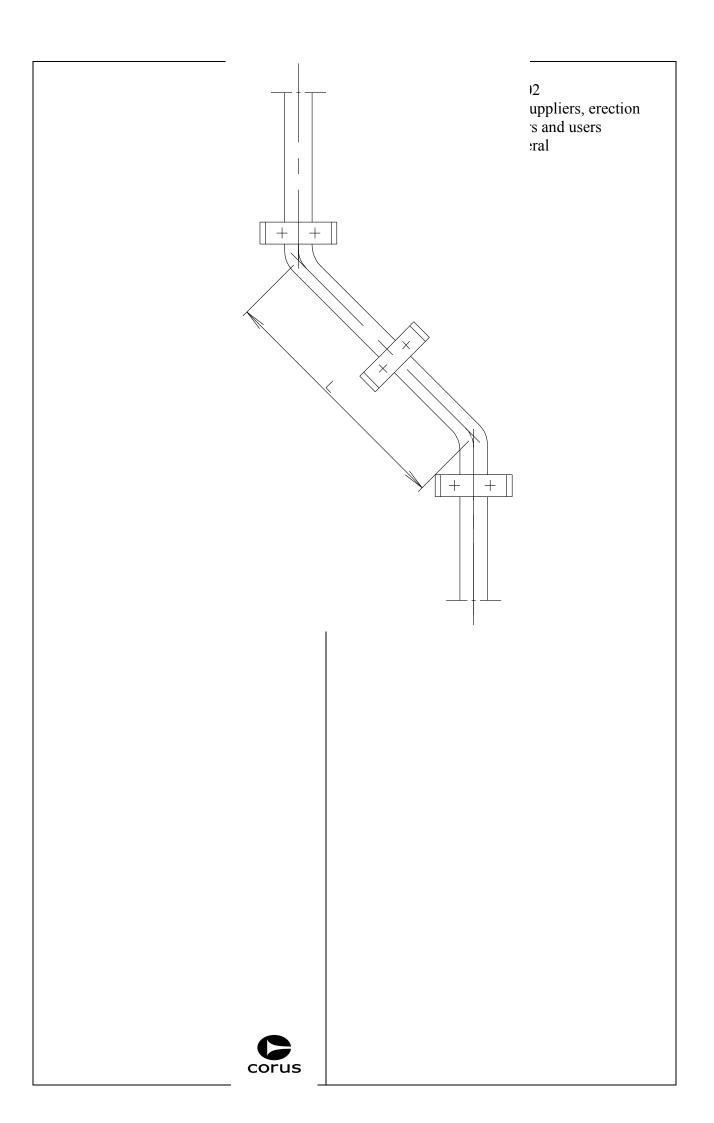




Figure 2.6	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
	corus



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



Scheme 2.7	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Dimensions in mm	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	Pipe diameter		L max.
	i ipe diameter		R1 41 01 02
		Pne	umatics-directive for suppliers, erection
			companies, managers and users Part 2: General
1			
	corus		
·			

10 - 42	1200
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	

≥ 48,3		2000
		R1 41 01 02
	Pne	sumatics-directive for suppliers, erection
	1 110	acompanies, managers and users
		companies, managers and users Part 2: General
		Part 2: General
Corus		
corus		
	1	







	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

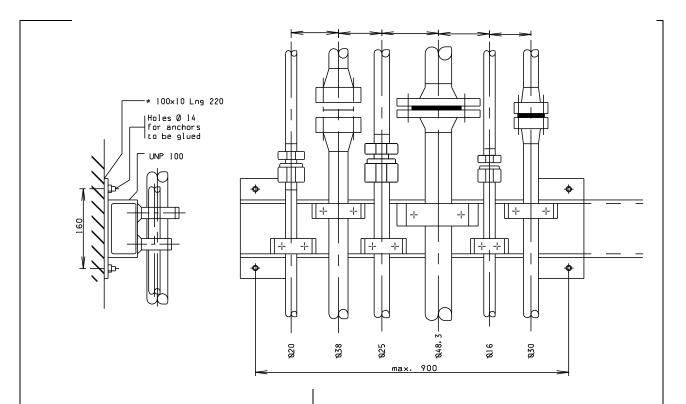
4				
2	.6.8.art.a.2.	Locating pipe cl	amps and	supporting structure



Dimensions in mm	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	



<u></u>	
Figure 2.8	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus

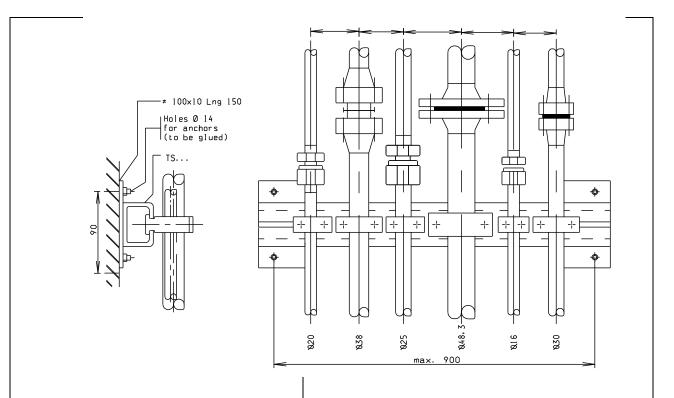




	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	
Figure 2.9	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Drus
C0	prus





	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Dimensions at traces	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
corus	
corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Scheme 2.8	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Dimensions in mm	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



diameter Pr	L max. R1 41 01 02 neumatics-directive for suppliers, erection companies, managers and users Part 2: General
Pr	neumatics-directive for suppliers, erection
	Part 2: General
 corus	

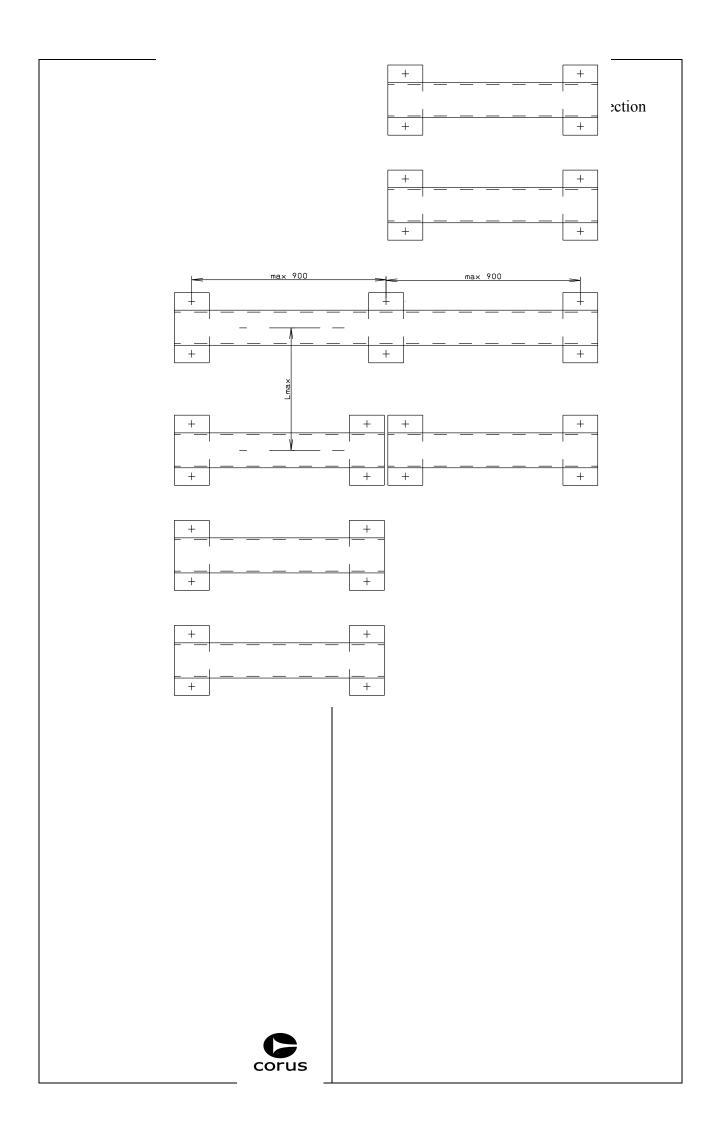
10 - 42	1500
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	

≥ 48,3		2500
		R1 41 01 02
	Pne	eumatics-directive for suppliers, erection
	1 110	unates-uncenve for suppliers, election
		companies, managers and users Part 2: General
		Part 2: General
-		
corus		



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Figure 2.10	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	





	Pipe diameter		L max.
	i ipe diameter		R1 41 01 02
		Pne	umatics-directive for suppliers, erection
			companies, managers and users Part 2: General
1			
	corus		

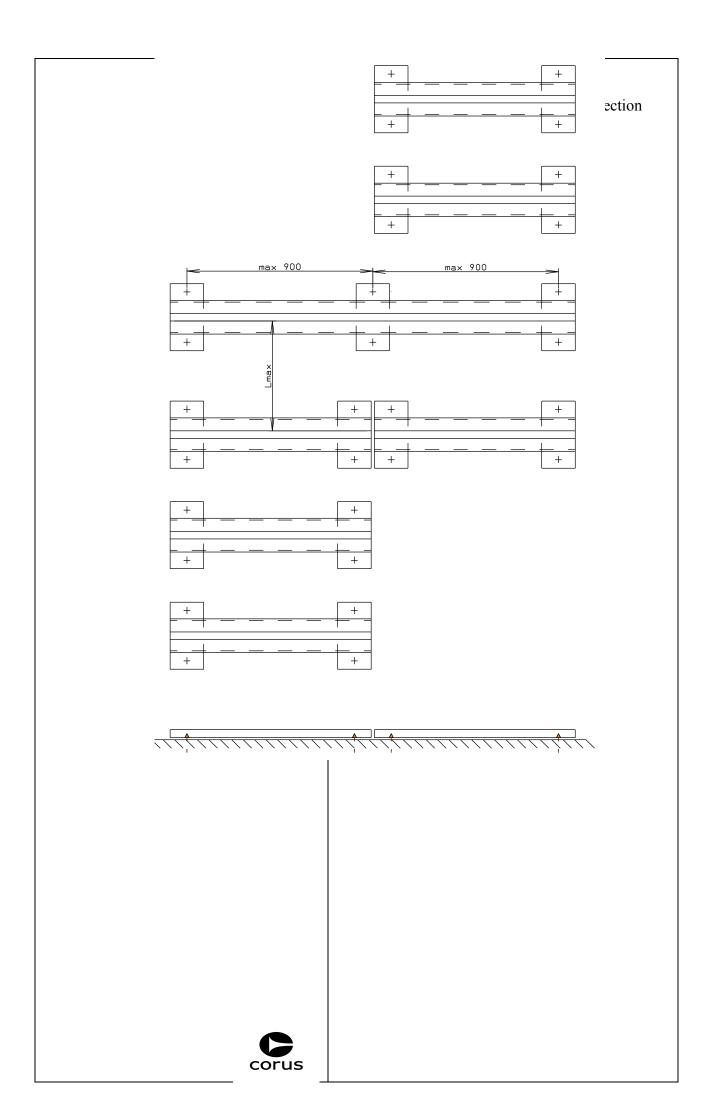
10 - 42	1500
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	

≥ 48,3		2500
		R1 41 01 02
	Pne	eumatics-directive for suppliers, erection
	1 110	unates-uncenve for suppliers, election
		companies, managers and users Part 2: General
		Part 2: General
-		
corus		



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Figure 2.11	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	





	Pipe diameter		L max.
	i ipe diameter		R1 41 01 02
		Pne	umatics-directive for suppliers, erection
			companies, managers and users Part 2: General
1			
	corus		

10 - 42	1500
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	

≥ 48,3		2500
		R1 41 01 02
	Pne	eumatics-directive for suppliers, erection
	1 110	unates-uncenve for suppliers, election
		companies, managers and users Part 2: General
		Part 2: General
-		
corus		

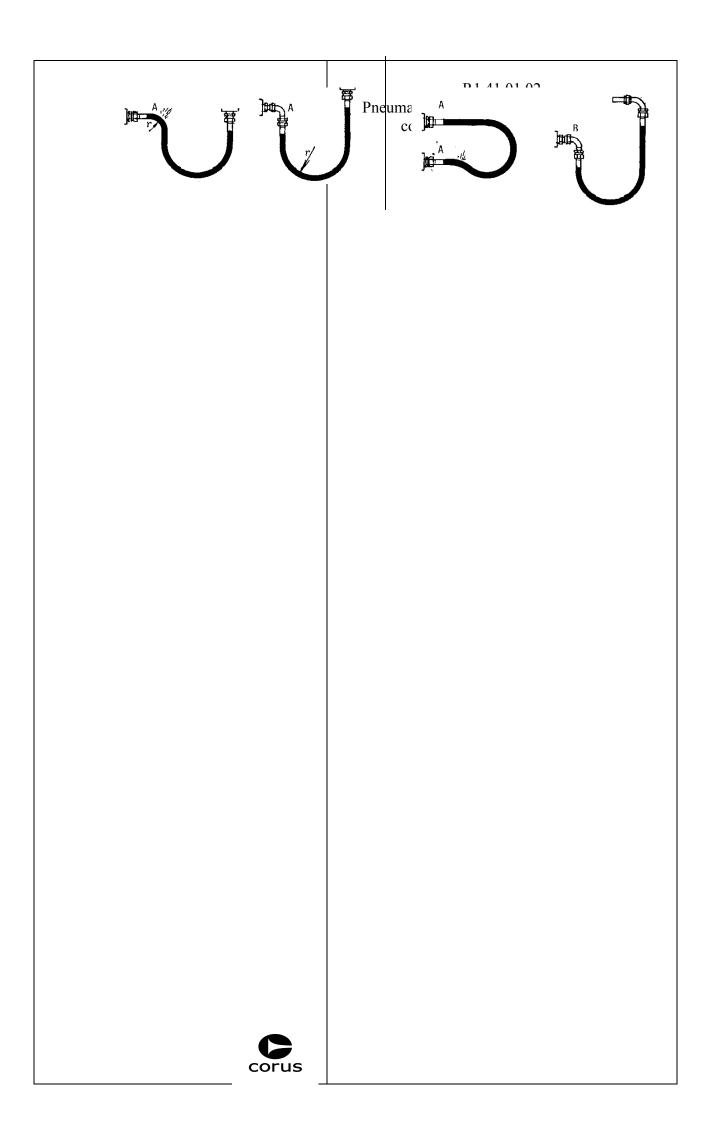


2.6.8.art.b. Hoses	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
	Part 2. General
-	
Corus	
corus	

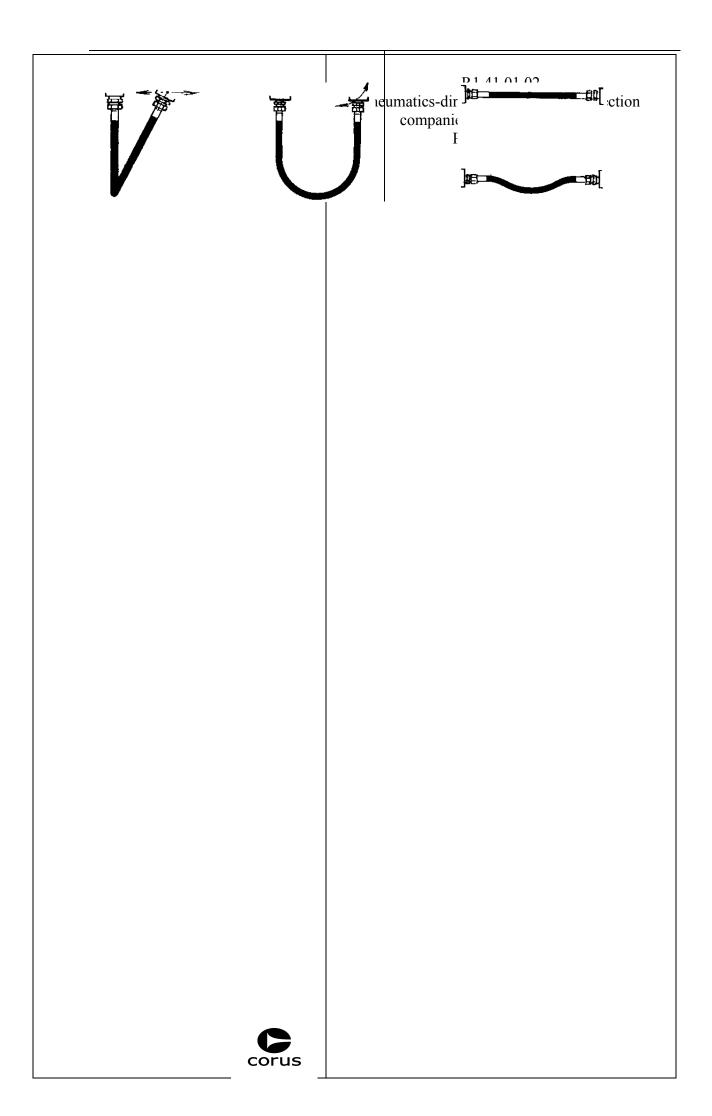
Hose assembly examples.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
-	
corus	
corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

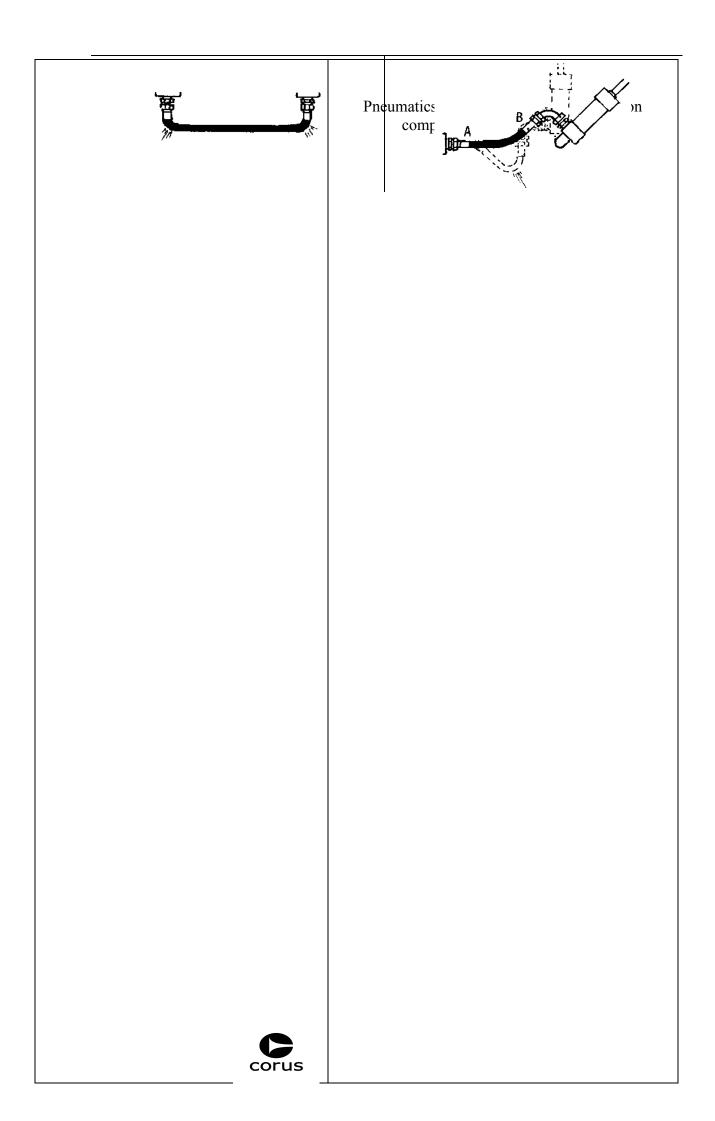
Figure 2.12	Pneumatics-di compani	R1 41 01 02 rective for suppliers, erection les, managers and users Part 2: General
C	orus	



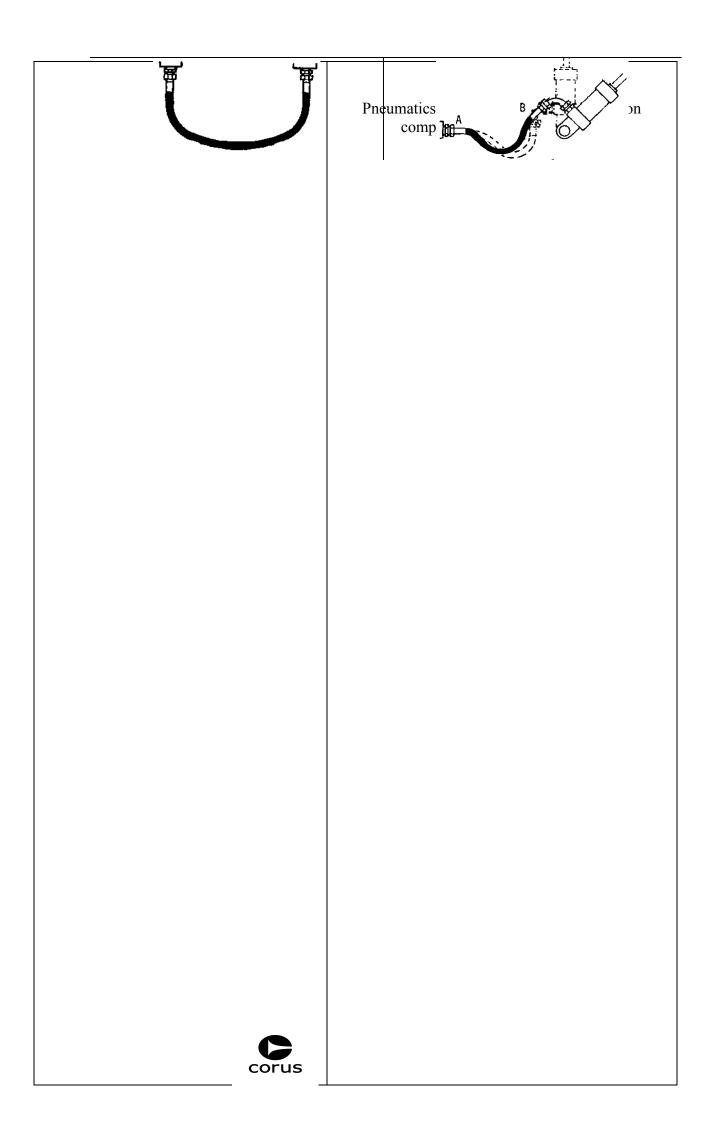
wrong	right	wrong	right
		R1 41 01 02	
		Pneumatics-directive for supplier companies, managers and u Part 2: General	s, erection
		Part 2: General	15015
	Corus		
	corus		



wrong	right	wrong	right
		R1 41 01 02	
		Pneumatics-directive for supplier companies, managers and u Part 2: General	s, erection
		Part 2: General	15015
	Corus		
	corus		



wrong	wrong
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
cor	
COL	us



right	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
corus	

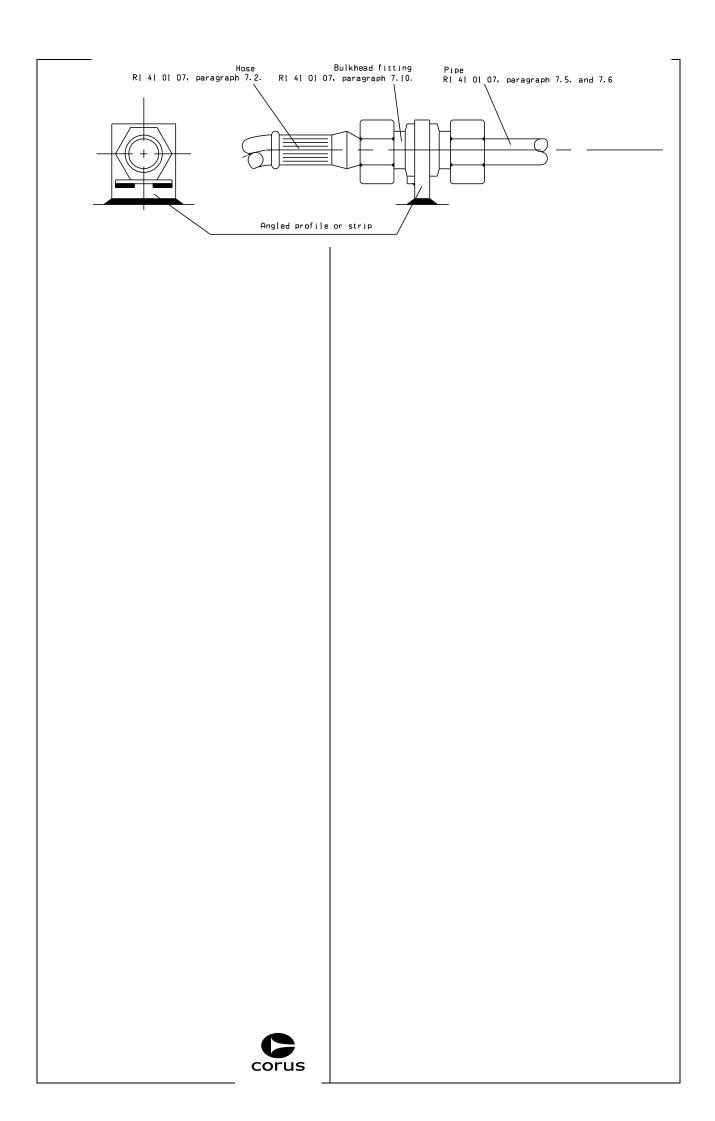
		÷ • • •
		right
		R1 41 01 02
	л	$K^{1} + 1 + 0 + 02$
	Pno	eumatics-directive for suppliers, erection
		companies, managers and users
		companies, managers and users Part 2: General
		T art 2. General
-		
Corus		
COFUS		



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Figure 2.13	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



2.7.	Electrical wiring of units	
	6	R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
		Part 2: General
	corus	

2.7.1.	Scope and application	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		acompanias, managars and usars
		companies, managers and users Part 2: General
		Part 2: General
	Corus	
	COrus	



Positioning of terminal boxes, protective tubes and/or oil-resistant hoses for cables in co-



operation with Corus.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
ß	
corus	



Per coil, pressure switch, level tester, etc., only one cable to terminal boxes, electromotors



excluded.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

All contacts, inclusive those which are not used, to be connected to terminal via cable. All



instruments to be earthed in cabinet.	
	R1 41 01 02
	Pneumatics-directive for suppliers erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
corus	

All electrical equipment must be installed on vibration dampers (silent blocks), when



mounted onto pump motor units.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
Corus	
COLUS	

In Figure 2.14 is given an example. Item numbers in this text refer to this drawing as well.



2.7.2. Terminal box	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
corus	
corus	

Sahama 10	
Scheme 2.9	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Coru	
coru	

Make: Rose	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
Corus	
corus	

Protection class: IP 55	
ribitetion class. If 55	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
corus	



Explanation composition order number bo R1 41 01 02 Pneumatics-directive for suppliers companies, managers and u Part 2: General	s, erection
Pneumatics-directive for suppliers	s, erection sers
companies, managers and u Part 2: General	sers
Part 2: General	
corus	

Order number	Dimensions	Number Type Earth rail Aluminium
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	corus	

	b x h x d	terminals	terminal	50 mm^2	hinges
			R1 4	41 01 02	
		Pneuma	tics-directiv	e for supplie	ers, erection
			mpanies m	anagers and	users
			Part 2	anagers and 2: General	
			1 41 t 2	2. General	
	Corus				
	corus				

	 in mm				outside
-			R1 41 01	02	
		Pneuma	atics-directive for s	supplie	ers, erection
		C	ompanies, manage Part 2: Gen	rs and	users
			Part 2: Gen	eral	
	corus				
	corus				
L					

02.161609-12/	160 x 160 x 90	12 *) K4/E ISS GA
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	corus	

K4/E-ISS-GA		<u> </u>
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies managers and users
		companies, managers and users Part 2: General
	Corus	
	corus	
	<u> </u>	

02.252612-30/	250 x 255 x 120	30 *)	K4/E	ISS	GA
			R14	41 01 02	
		Dneuma	tics_directiv	ri or oz ve for suppli	ers, erection
		Theuma		on a construction of the c	
		C	Sinpanies, in	anagers and	users
			Part 2	2: General	
	_				
	Corus				

K4/E-ISS-GA	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	companies, managers and users Part 2: General
Corus	

02.254012-50/	250 x 400 x 120	50 *)	K 4/E	ISS	GA
			R14	41 01 02	
		Droume	tias directiv	+1 01 02	ora araction
		Pheuma			ers, erection
		CO	ompanies, m	anagers and 2: General	users
			Part 2	2: General	
	Corus				
	corus				

K4/E-ISS-GA	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	companies, managers and users Part 2: General
Corus	

02.256012-80/	250 x 600 x 120	80 *)	K4/E	ISS	GA
			R1.	41 01 02	
		Dramma	tion directiv	+10102	ara araction
		Flieullia	uics-uirecuiv		ers, erection
		C	ompanies, m	anagers and	users
			Part 2	anagers and 2: General	
	Corus				
	corus				

K4/E-ISS-GA	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	companies, managers and users Part 2: General
Corus	

*1) The number of te	rminals is also the maximum permitted.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
	rait 2. Utiltiai
corus	
corus	



Corus



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

2.7.3. Codes		R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	corus	

2.7.3.art.a.	Terminal box coding	
	8	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	corus	

Glue a Resopal sign on the cover (WZW)	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Turt 2. General
corus	

Letter height minimal 10 mm.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	
corus	

2.7.3.art.b. Terminal rail coding	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	companies, managers and users Part 2: General
Corus	
corus	



2.7.3.art.c.	Terminal coding component side	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies managers and users
		companies, managers and users Part 2: General
	corus	
	corus	
L		

Make: Phoenix	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users Part 2: General
corus	
corus	

Code shield, type: DST 5.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Plug-in rail, type: ES 6.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	



Terminal codes will be supplied by Cprus.		
	R1 41 01 02 Pneumatics-directive for suppliers, erection	
	companies, managers and users Part 2: General	
Corus		

Code shields with consecutive numbers are already fixed on one side.



2.7.3.art.d.	Cable/wire coding	
	Caster that e county	R1 41 01 02 Pneumatics-directive for suppliers erection
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	
	corus	

Make: Phoenix	
	R1 41 01 02
	Pneumatics-directive for suppliers erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
	Tart 2. General
-	corus
C	

Synthetic cable coding sleeve, type: K	MK.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	Part 2: General
Corus	

Synthetic plug-in rail, type: ESK/LP-BW	Γ.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
Corus	

Male code plug, type: B	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	companies, managers and users Part 2: General
corus	
corus	



Wires to be coded at both ends with number according to wiring list and/or drawing. Wire



numbers to be submitted by Corus.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
_	
Corus	
corus	

2.7.3.art.e.	Core coding	
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		a neumanics managers and users
		companies, managers and users Part 2: General
		Part 2. General
	corus	
	corus	
L		

Make: Phoenix	
	R1 41 01 02
	Pneumatics-directive for suppliers erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
	Tart 2. General
-	corus
C	

Core coding sleeve, type: LBH 2.	
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users
	companies, managers and users Part 2: General
Corus	



All cable core ends and wires connected to terminal rails and devices (no terminal point



blocks nor brazing rail) must have co	tes, which are to be submitted by Corus or the main
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
	Fait 2. Ocherai
Corus	

contractor.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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2.7.4. Wires/cables	R1 41 01 02 Pneumatics-directive for suppliers, erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

Scheme 2.10	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
Corus	

Ty	pe	Cores	Are	a	Extremely	Outside	Other
				I	D	R1 41 01 02	
					compan	rective for supplic	users
					compan	ies, managers and Part 2: General	
			rus				
			1 4 3				

Ŀ		in mm ²	flexible diameter in mm
			R1 41 01 02
			Pneumatics-directive for suppliers, erection
			companies, managers and users Part 2: General
			Part 2: General
	Coru	ls	

VMvL/500	3 x	0,5	bb	5,7	Oil resistant
				R1 41 01 02	
			Pneumatics-di	rective for supplie	ers, erection
			compani	ies, managers and Part 2: General	users
			1	Part 2: General	
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VMvL/500	8 x	0,5		bb	8,3	
					R1 41 01 02	
				Pneumatics-di	rective for supplie	ers erection
			-		iog managara and	
				company	ies, managers and Part 2: General	users
					Part 2: General	
		rus				
		ius				

R1 41 01 02 Preumatics-directive for suppliers, erection companies, managers and users Part 2: General	VMvL/500 14 x	0,5	bb	10,2		
Part 2: General]	compan	irective for supplies, managers an	iers, erection d users	
				Part 2: General		
Corus	C	Corus				

VMvL/500	4 x	l	bb	8,4	
				R1 41 01 02	
			Pneumatics-di	rective for supplie	ers erection
				iog managars and	
			compani	ies, managers and Part 2: General	users
				ran 2: General	
		rus			
	CO	rus			



Make: U.I. Lapp	trade name: Oelflex
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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L	

Make: Lütze	trade name: Siflex	< colored and set of the set of t
		R1 41 01 02
	Pn	eumatics-directive for suppliers, erection
		companies, managers and users
		companies, managers and users Part 2: General
	corus	

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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Above mentioned cables may not be u	ised if temperatures are expected below 0 °C. In that
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users
	Part 2: General
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case, consult the hydraulic engineer in	ivolved.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
	Part 2: General
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mentioned below:	
	R1 41 01 02
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	companies, managers and users
	Part 2: General
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Scheme 2.11	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Туре	Cores	Area in mm ²	Outside	Other
			R1 41 01 02	
		Pneumatics-	directive for suppl	iers, erection
		compa	nies, managers an Part 2: General	a users
			Turt 2. General	
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	corus			

	diameter in mm
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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Į		<u>├</u>		+	Cu protoction
	S/300	3 x	1	10 D1 41 01 02	Cu-protection
			R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General		
		ß			
		corus			

				flexible cores.
		Pneumatics-c compar	R1 41 01 02 lirective for suppl nies, managers an Part 2: General	iers, erection d users
			Part 2: General	
	corus			

I		<u> </u>	L			
	STC/300	1 x	2 x	1	9	Per couple
				Pneumatics-o compa	R1 41 01 02 directive for supp nies, managers an Part 2: General	liers, erection d users
		cor	us			

Į	Į	ļ		
			D1 41 01 00	protected and
		Decourse	R1 41 01 02	iona onastia-
		Pneumatics-c	lirective for suppl	d usors
		compar	nies, managers an Part 2: General	u users
	corus			

			isolated flexible
		Pneumatics-o compa	R1 41 01 02 directive for suppliers, erection nies, managers and users Part 2: General
	corus		
	corus		

				cores
		Pneumatics-o	R1 41 01 02 directive for suppli	iers, erection
		compa	nies, managers and Part 2: General	1 users
	C			
	corus			

	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Cable must comply at least with IEC-	
	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
Corus	
corus	



2.7.5.	Cable bushes in termine	al box	
			R1 41 01 02
			Directive for suppliers practice
			Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
			companies, managers and users
			Part 2: General
		Corus	
		corus	

Bushes in terminal box preferably at the lower side, if not possible the upstanding sides, if



inevitable at the rear side	, but never at	the top.
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies managers and users
		companies, managers and users Part 2: General
		Tart 2. General
	Corus	
	corus	

All connecting cables on one side, so either left or right of terminal rail.



Bushes to be of synthetic material and sized in accordance with cable size.



All cable bushes to be filled with 'kit' e.g. silicon kit, oil resistant and useable up to 100 °C.





Make: Phoenix, PG, type HSK-K (gre	y).
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	



	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Scheme 2.12	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users
	Part 2: General
Corus	

	Cable-	Order num	ber	Cable-	Order number
				R1 41 01 02	
			Pne	umatics-directive for su	nnliers erection
					and usors
				companies, managers	
				Part 2: Gener	al
		Corus			

connection	standard	grey	connection		standard grey
		Pne	R1 41 0 umatics-directive fo)1 02 or supp	liers erection
		1 IIC	companies, mana Part 2: G	igers ar	nd users
			Part 2: G	eneral	
	Corus				
	corus _				

Pg 7	08.070007		Pg 21	08.070021	
		R1 41 01 02 Pneumatics-directive for suppliers, erection			
	companies, managers and users Part 2: General				
	C				
	corus				

Pgg	9	08.070009	Pg 29		08.070029
			R	1 41 01 02	
			Pneumatics-direct	tive for suppli	ers, erection
			Part	managers and t 2: General	l users
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Pg 11	08.0700	11	Pg 36	08.070036
			R1 41 01 02	
		Dno	NI 41 UI U	nnliers erection
		Phe	cumatics-directive for su	ippliers, election
			companies, managers Part 2: Gener	s and users
			Part 2: Gener	ral
	Corus			

Pg 13,5	08.070013	Pg 42	08.070042
		R1 41 (Pneumatics-directive for companies, mana	or suppliers, erection
		companies, mana Part 2: C	General
	Corus		

Pg 16	08.07001	16	Pg 48	08.070048
			R1 41 01 0	
		D., -	NI 41 UI U	-
		Pne	cumatics-directive for su	ippliers, erection
			companies, managers Part 2: Gener	s and users
			Part 2: Gene	ral
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Make	: Cito Benelux	
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	Corus	

Туре	: HSK-K	
Турс	. 11012-12	R1 41 01 02
		Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	Corus	
	corus	

Standard design : grey	
	R1 41 01 02
	NI 41 01 02 Desumation directive for superlices creation
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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2.7.6. Cable protection	
r r r r r r r r r r r r r r r r r r r	R1 41 01 02
	R1 41 01 02 Desumation directive for sumplions practice
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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Cables must be protected by means of steel tubing, bends not excluded. Tubing must be



fixed	in such	h a way ti	hat no oil	or water can	penetrate in the tube.	



Tubes have to be protected by bushes at both ends; layout must be logical and conveniently



arranged: mix-up of connections (especially plugs!) have to be impossible.



2.7.7. Suppliers	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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Terminal boxes (Rose):	
	R1 41 01 02
	Pneumatics_directive for suppliers_erection
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
Corus	
corus	

Holland:	Cito Benelux BV. postb	us 246, 6900 AE Zevenaar, tel. 0316-524555.
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	Corus	
	corus	

Germany:	Rose Elektrotechnik Gm	bH, Postfach 1320, 0-4952 Porta West Falica,
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
	Corus	

tel. 0571-5041	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
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T 177		
UK:	kadiatron Ltd., 76 Crown	Road, Twickingham, MDXX EW13 ET,
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
		Turt 2. General
	Corus	
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tel. 01-8911221.	1
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
Corus	

France:	Rose France, Z.A. des A	louettes, 118 Avenue due Marchel de Lattre,
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
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<u>Codes (Phoenix)</u> :	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
corus	

Holland:	Cito Benelux BV. postb	us 246, 6900 AE Zevenaar, tel. 0316-524555.
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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(Jermany:	Phoenix	GmbH, Postfac	n 1341, D-4933,	Blombergen,	tel. 05235-551.



TTZ ·	Frma I td. Mount Dlagad	nt Wembley MDDY HAO IPS
UK:	Erma Ltd., Mount Pleasant, Wembley, MDDX HAO IRS,	
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies managers and users
		companies, managers and users Part 2: General
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tel. 01-9034561.	
	R1 41 01 02
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	companies, managers and users Part 2: General
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corus	

France:	Phoenix Blocs de Jonotic	n S.A.R.L., 85 Avenue de Neuilly, 94120 Fontenay-
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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sous-Bois, tel. 01-877214	5.
	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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<u>Cables.</u>	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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U.I. Lapp:	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
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Holland:	ELSPEC BV, postbus 1	144, 1430 BC Aalsmeer, tel. 0297-328999.
	-	R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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Germany:	U.I. Lapp KG, Schulze-	Delitzsch Strasse 25, Postfach 800640, D-7000
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
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	corus	

Stuttgart 80, tel. 0711-78	38-01.
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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corus	

UK:	Oskar Lapp Ltd., 46-50	Standard Road, GB-London N.W. 10, tel. 01-
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
		Part 2: General
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		R1 41 01 02
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		Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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France:	Sermes, 14 Rue des Fren	R1 41 01 02 Pneumatics-directive for suppliers, erection
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88-799900.	
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	companies, managers and users Part 2: General
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tel. 01-2422903.	
WI. 01-2422703.	R1 41 01 02 Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
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Lütze:	
	R1 41 01 02
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	companies, managers and users
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corus	

Holland:	Techn. Handelsbureau A	L Laumans, postbus 60, 6000 AB Weert,
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
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tel. 0495-521067.	
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies, managers and users Part 2: General
	Part 2: General
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Germany:	Frederich Lütze GmbH	and Ko., Postfach 1224, D-7056 Weinstadt 3,
		R1 41 01 02
		Pneumatics-directive for suppliers, erection
		companies, managers and users
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tel. 07151-60530.	
WI . 07131-00350.	D1 41 01 02
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UK:	Gap Ltd., Silflex Cable	Division Energy House Falkland Close, Charter
		R1 41 01 02
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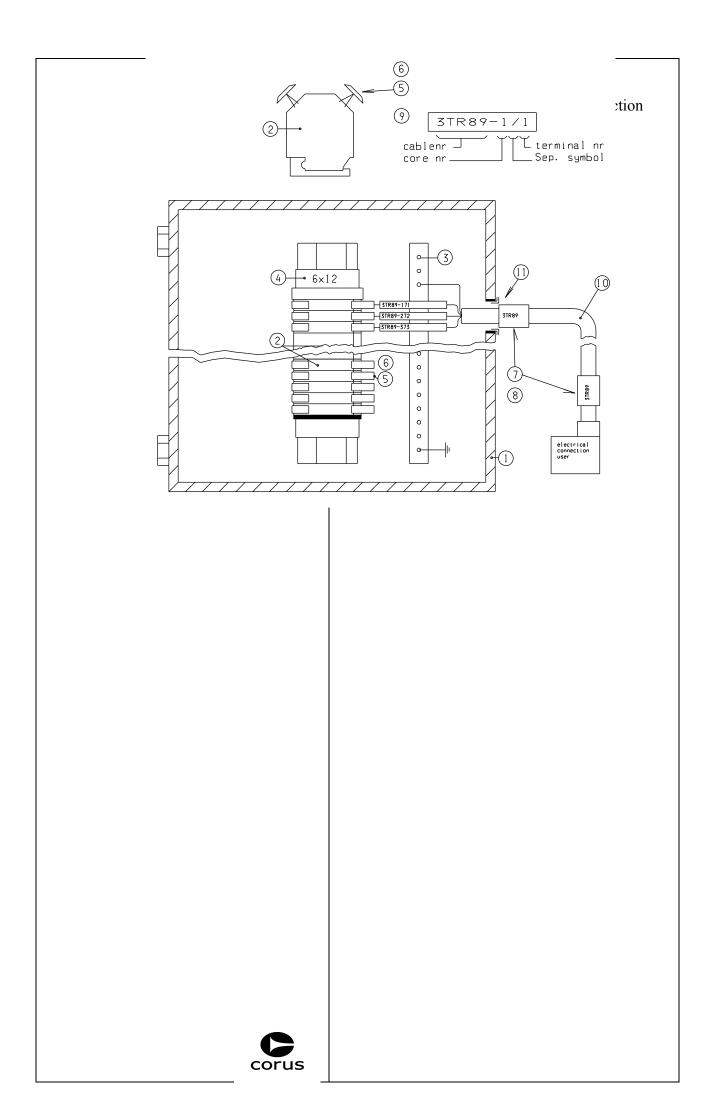
Avenue, Industrial	Estate, GB-Cov	entry CV4 8AU, tel. 01-203468259.
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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France:	Lutze S.A.I	K.L., 8 Rue Lo	uis Armand - Z.A.E., F-95600 Euabonne.
			R1 41 01 02
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			companies, managers and users
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Figure 2.14	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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1. Terminal box	
	R1 41 01 02
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2. Terminal	
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3. Earth rail	
	R1 41 01 02
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4. Terminal rail coding	
1. Terminar fan coullig	R1 41 01 02
	Pneumatics-directive for suppliers, erection
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5. Terminal code smeld	R1 41 01 02
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6. Terminal sockets	
	R1 41 01 02
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7. Synthetic cable coding sleeve	
	R1 41 01 02
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8. Synthetic terminal sockets	
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9. Core coding	
	R1 41 01 02
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10.VMvL-cable		
		R1 41 01 02 Pneumatics-directive for suppliers, erection
		companies, managers and users Part 2: General
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11.Cable bushes	
	R1 41 01 02
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2.8. Sealings	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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Not yet available.	
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	companies, managers and users Part 2: General
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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2.9.	References	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
		Part 2: General
	Corus	

In this Technical Directive reference	is made to
	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
	Part 2: General
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Technical Directives	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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	R1 41 01 02
	Pneumatics-directive for suppliers, erection
	companies managers and users
	companies, managers and users Part 2: General
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RI 41 01 03E	
	R1 41 01 02
	Discussion directive for suppliers creation
	Pheumatics-unective for suppliers, election
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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		Pneumatics-directive for suppliers, erection
		companies, managers and users
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	R1 41 01 02
	Draumatics directive for suppliers praction
	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	companies, managers and users
	Part 2: General
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Corus drawings 802.633 to 802.636	
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	companies, managers and users Part 2: General
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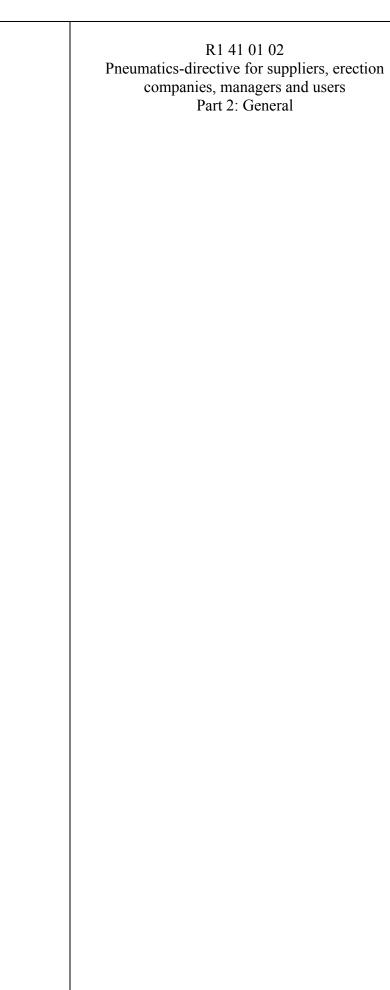


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	companies, managers and users Part 2: General
	Part 2: General
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	Part 2: General
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	Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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UTUI	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Part 2: General
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	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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British Standard BS 4545	
	R1 41 01 02
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	companies, managers and users
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VDMA 24562	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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IEC 189.	R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
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2.10.	Explanation		
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			Pneumatics-directive for suppliers, erection
			companies, managers and users Part 2: General
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none.		
		R1 41 01 02 Pneumatics-directive for suppliers, erection companies, managers and users Part 2: General
	Corus	



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