

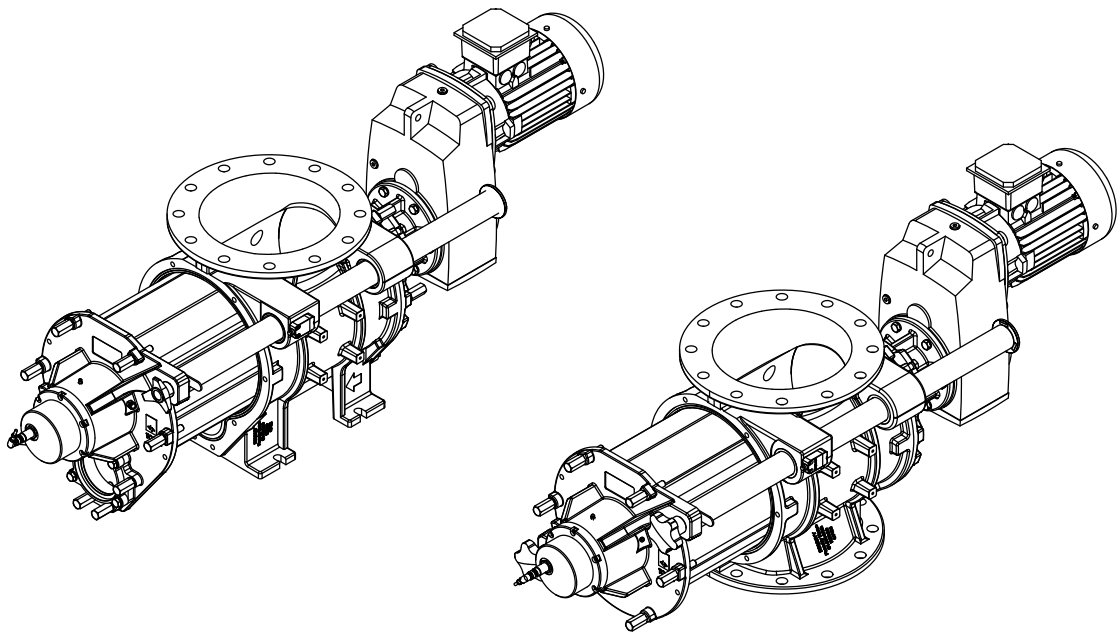


REC-RES

*BLOW-THROUGH AND
SLIDEOUT ROTARY VALVES*

1

TECHNICAL CATALOGUE



Manual No. TOR.REC-RES---T.A.1024.EN Issue: A
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ORIGINAL INSTRUCTIONS IN ENGLISH

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All the products described in this catalogue are manufactured according to **TOREX S.p.A. Quality System procedures**. The Company's Quality System, certified according to **ISO 9001-2015** guarantees that the entire production process, from the customer's order to the after sales service, can fulfil the product quality standard.

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1.1 Description

SlideOut rotor valves of the RES (blow-through flow) and REC (drop-through) types are the ideal solution for dosing powdery or granular materials in applications requiring frequent cleaning of the inner body and rotor. The easy-to-open slide device allows the extraction of the head complete with rotor for easy cleaning of all internal surfaces in contact with the material to be handled.

SlideOut REC / RES rotary valves are suitable for applications with high hygienic standards as required in the food, chemical and plastics industries.

IMPROPER USE NOT PERMITTED

The REC-RES rotary valves have been manufactured and designed for use in pneumatic conveying systems, in compliance with the quality standards required by the market.

The materials considered being hazardous are the following:

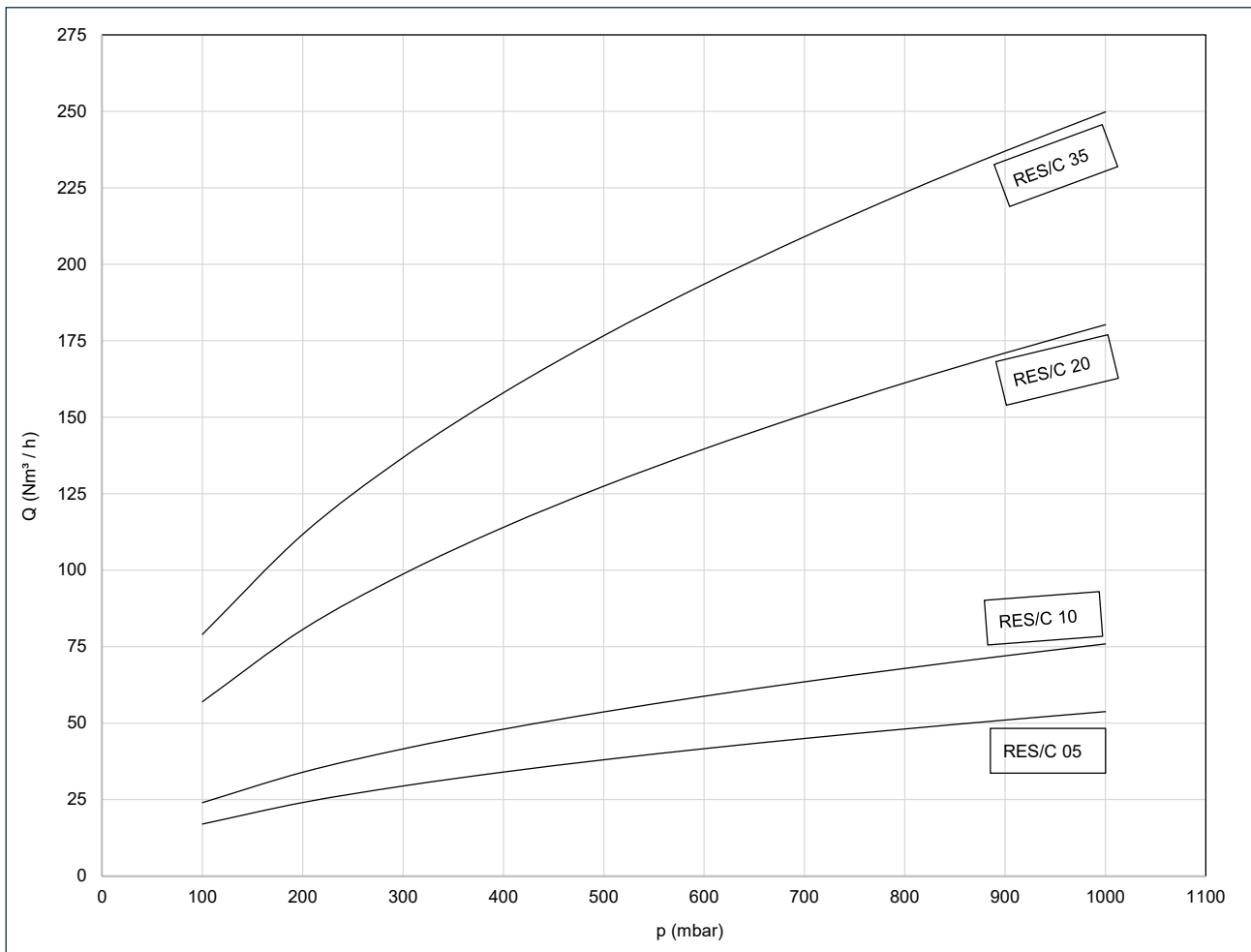
- explosives,
- toxic,
- flammable,
- harmful and / or similar.

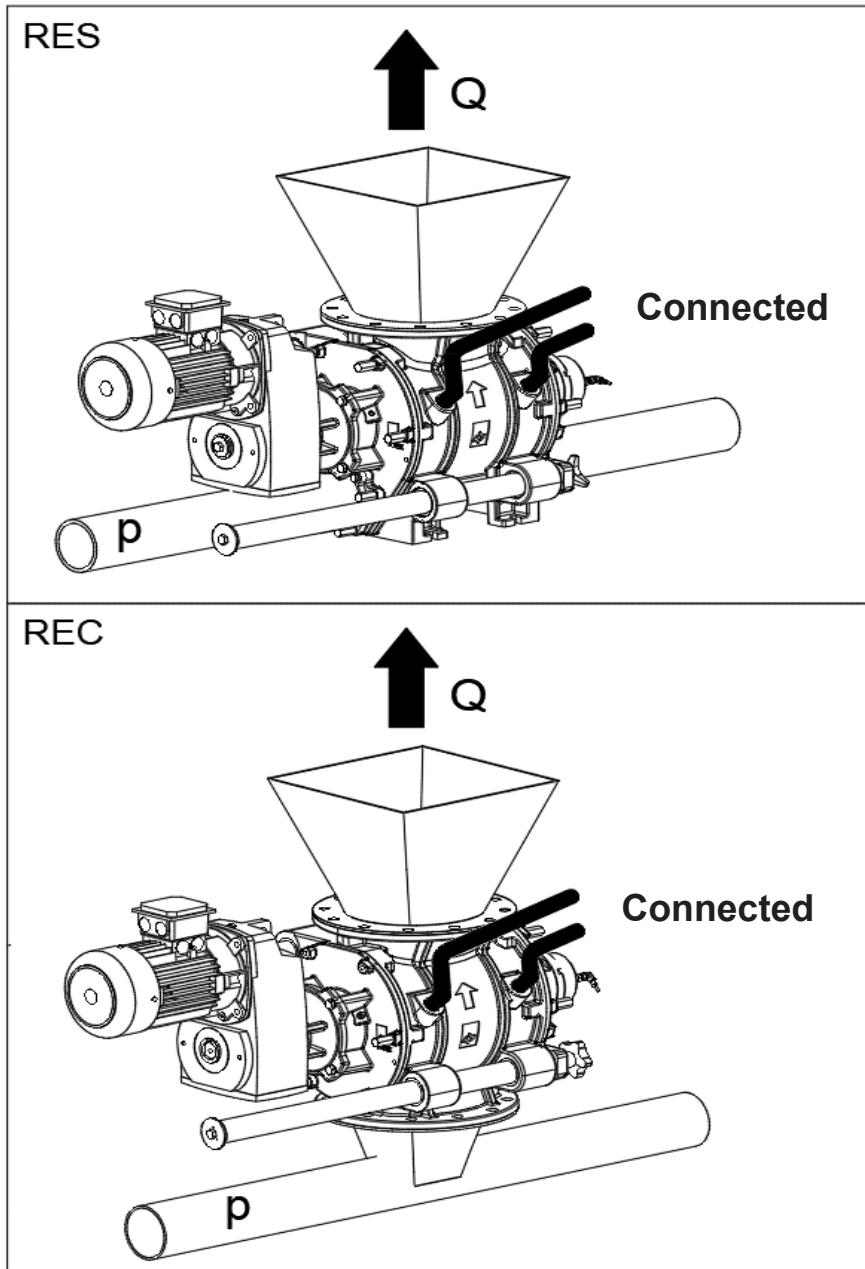
The applications considered being hazardous are the following:

- unloading from the silo or cells containing the materials previously indicated

1.2 Technical features

DESCRIPTION	REC-RES
Conveying	5 - 10 - 20 - 35 litres/revolution
Operating temperature	from - 40°C to + 150°C
Operation pressure	Depending on the application (see image below)
Construction materials	SS 316 steel

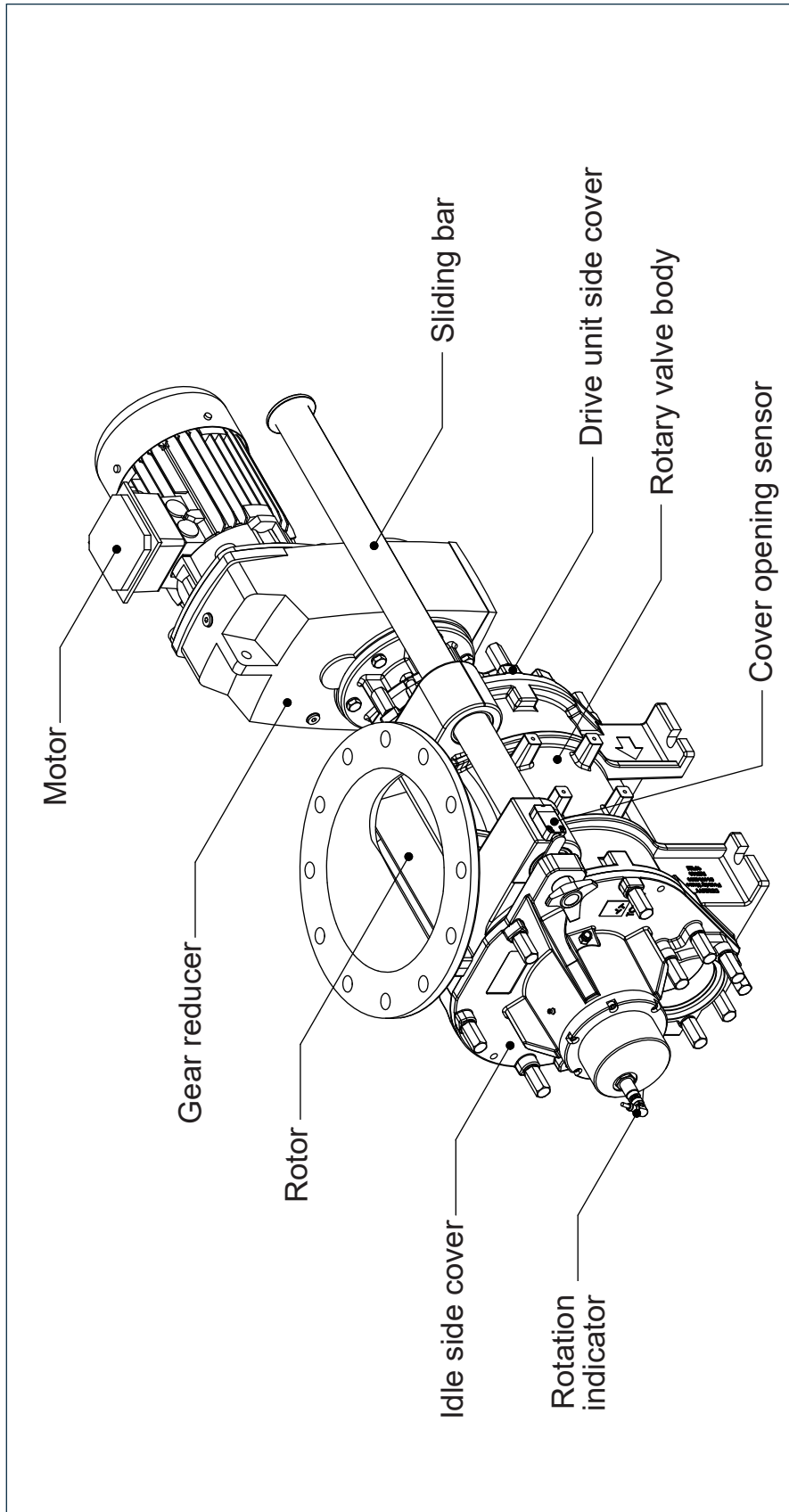
1.2.1 Loss of air (losses due to differential pressure during operation)


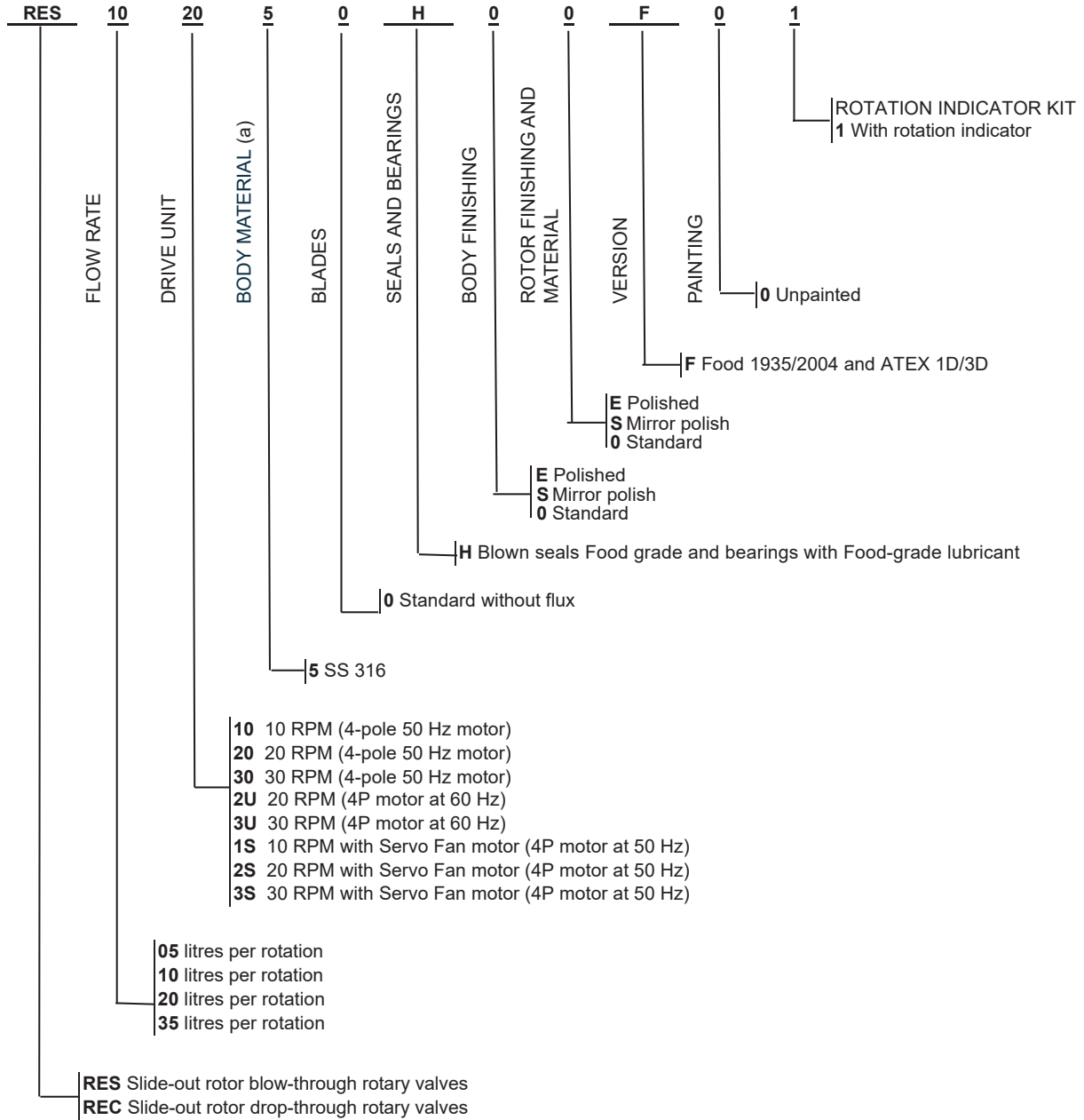


1.2.2 GEAR REDUCERS

EQUIPMENT	valve rpm	kW	Power supply	rpm motor (50 Hz)	In (A)	cosphi	Motor eff. (100%)						
REC-RES 05	10	0.25	230 / 400 V - 50 Hz	1400	0.70	0.71	73,5 %						
	20	0.37			0.91	0.76	77,3 %						
	30	0.55			1.29	0.75	81,4 %						
REC-RES 10	10	0.25			230 / 400 V - 50 Hz	1400	0.70	0.71	73,5 %				
	20	0.55					1.29	0.75	81,4 %				
	30	0.75					1.79	0.72	83,7 %				
REC-RES 20	10	0.55					230 / 400 V - 50 Hz	1400	1.29	0.75	81,4 %		
	20	0.75							1.79	0.72	83,7 %		
	30	1.10							2.38	0.78	85,3 %		
REC-RES 35	10	1.10							230 / 400 V - 50 Hz	1400	2.38	0.78	85,3 %
	20	1.50									3.23	0.79	85,3 %
	30	2.20									4.68	0.76	89,0 %

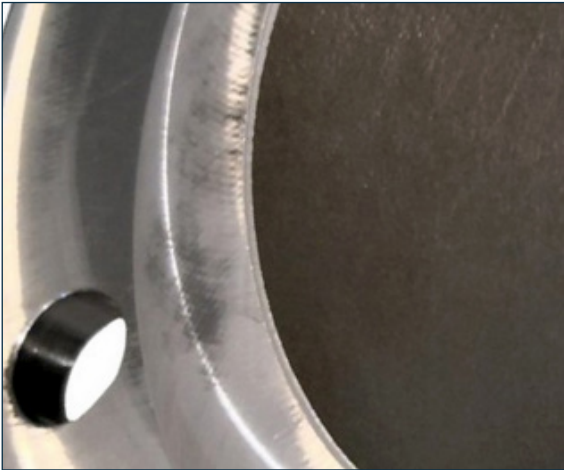
1.3 Standard machine description



2.1 Versions - Order code


2.2 Main components and accessories

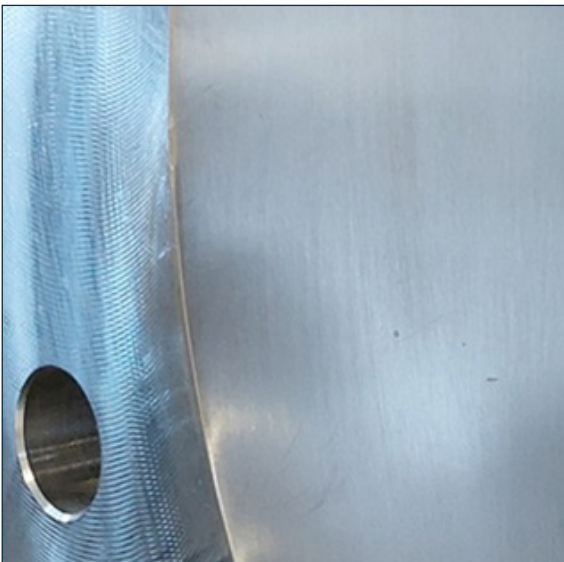
2.2.1 BODY AND ROTOR FINISHING



Standard

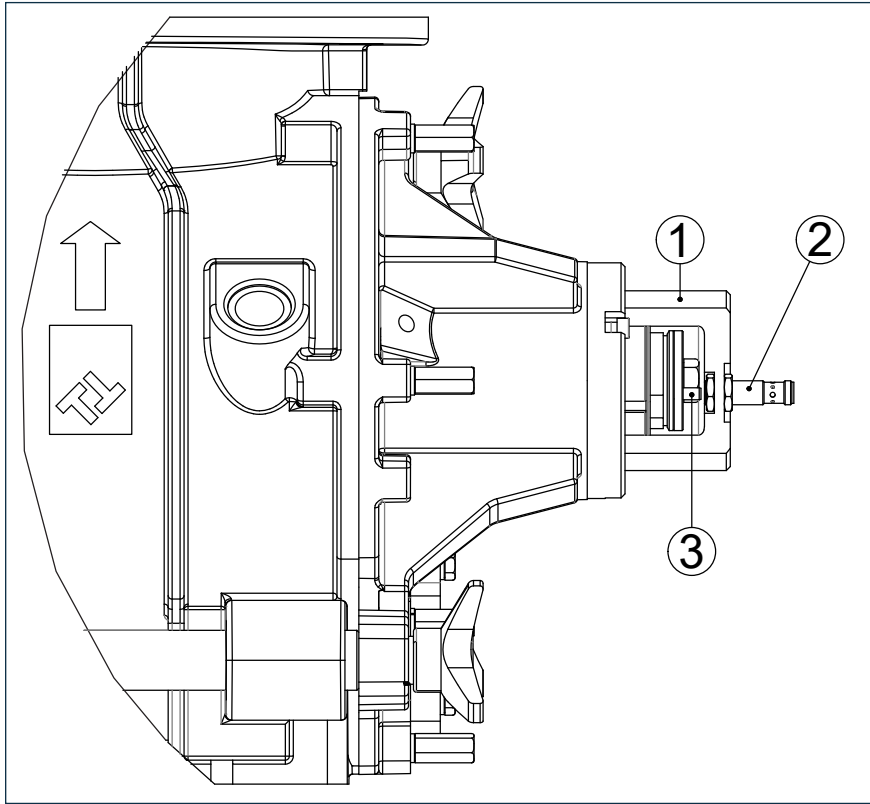


Mirror polishing



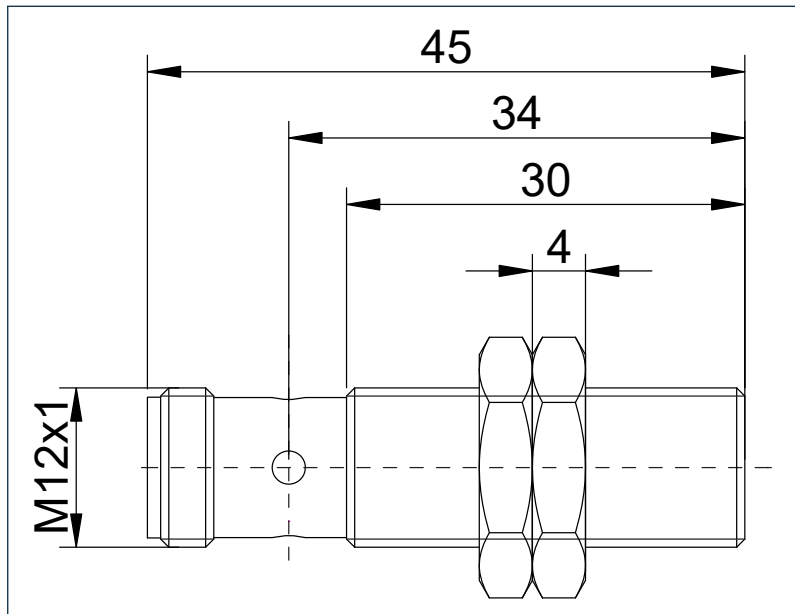
Polishing

2.2.2 ROTATION INDICATOR



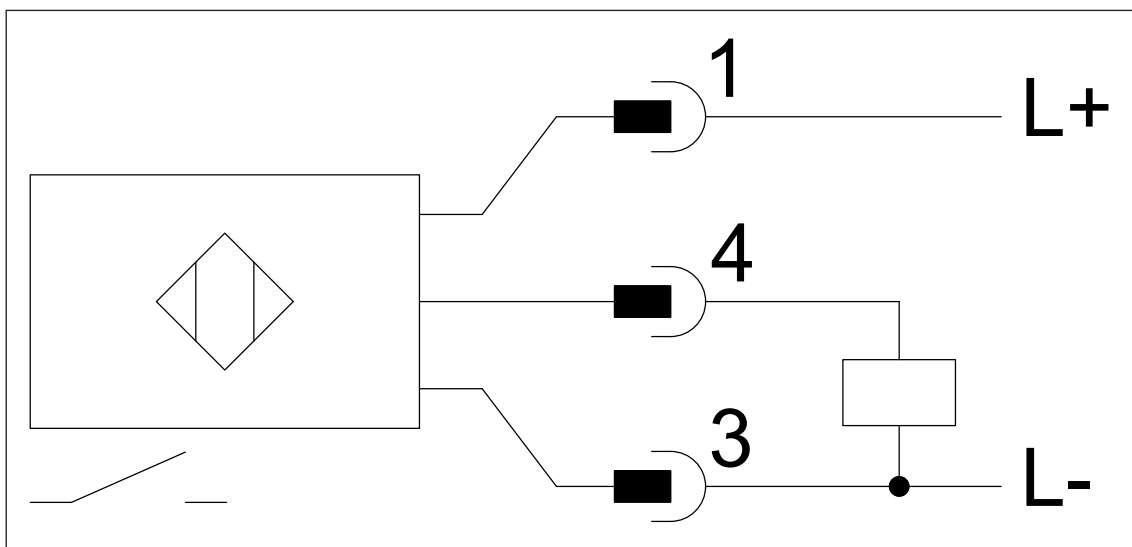
ROTATION INDICATOR	
1	Casing
2	Sensor
3	Pin

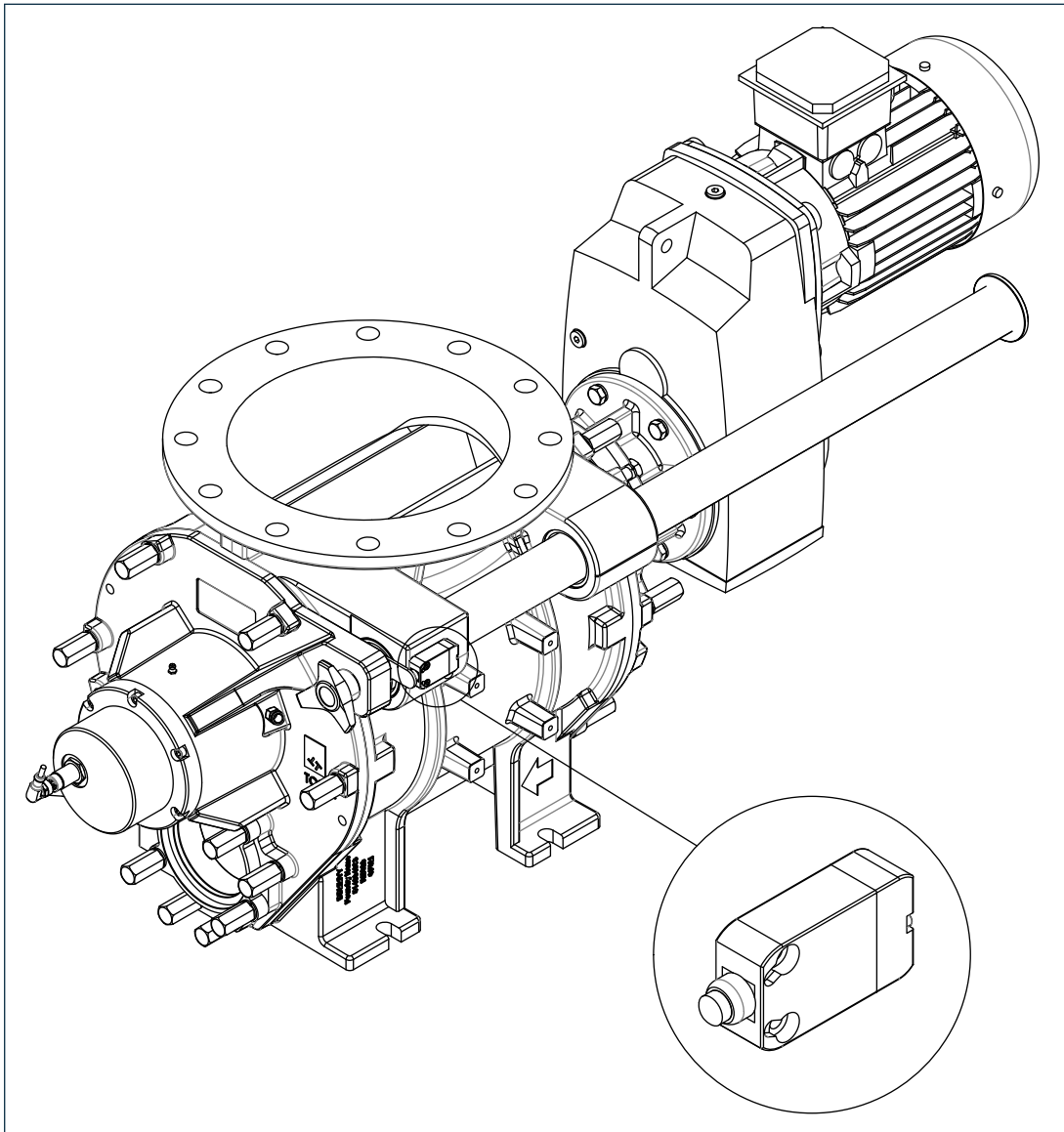
INDUCTIVE SENSORS



TECHNICAL DATA	
Electrical model	PNP
Output function	NO
Operating voltage [V]	10...30 DC
Input current [mA]	< 10
Insulation class	III
Ambient temperature	from -25°C to +60°C
Protection degree	IP 67

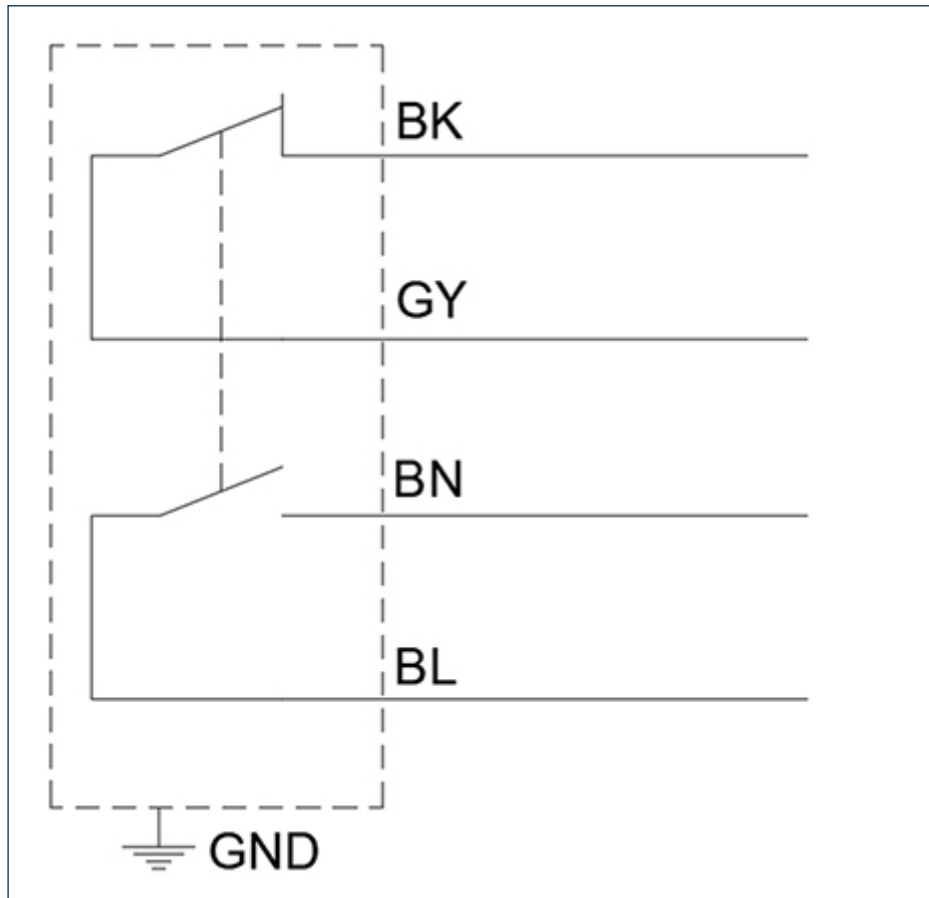
Electrical connections



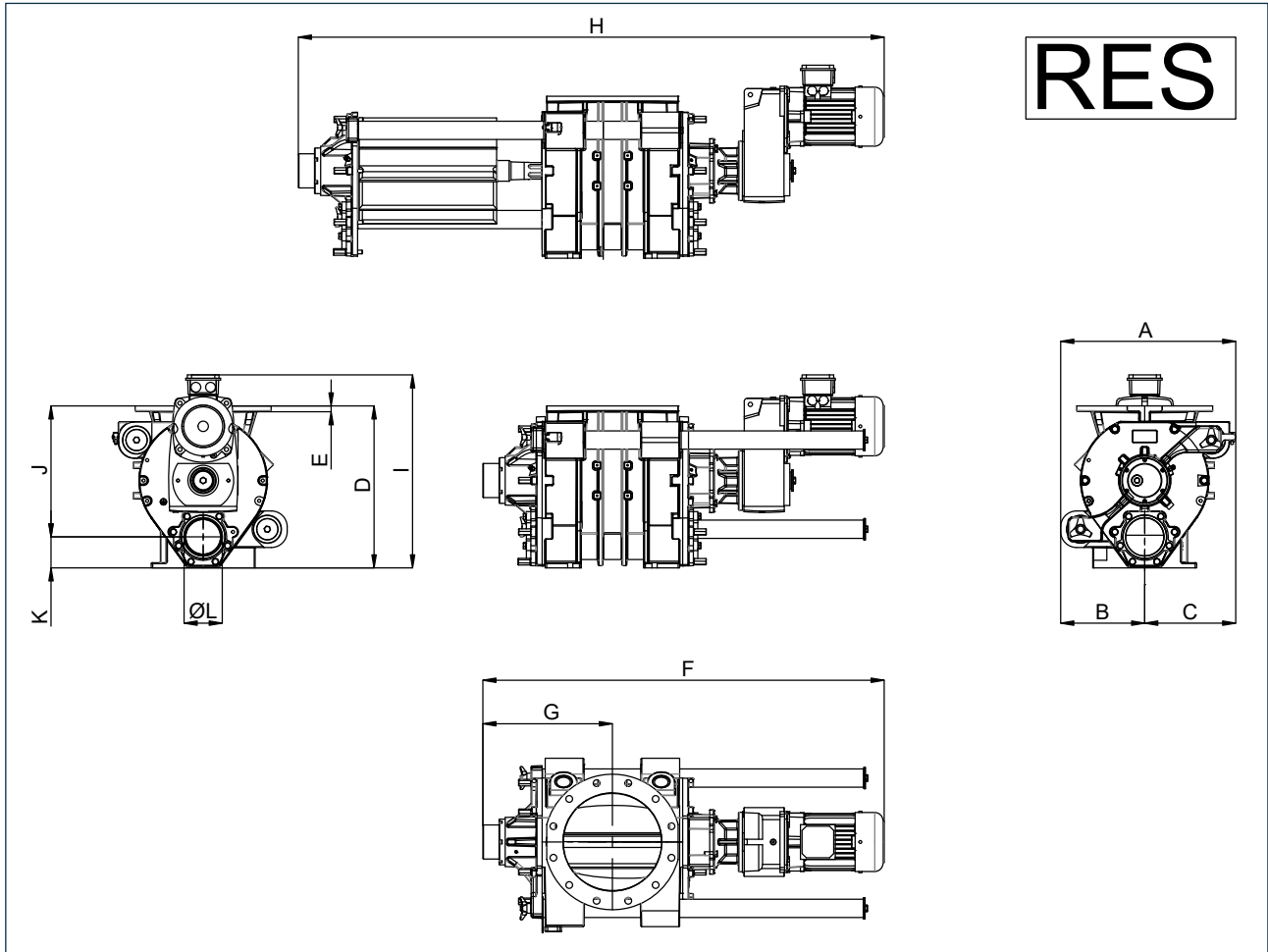
2.2.3 ROTARY VALVE IDLE SIDE COVER OPENING SENSOR


TECHNICAL DATA	
Protection degree	IP67
Thermal current	10 A
Insulation rated voltage	250 Vac
Internal connections	1NO + 1NC

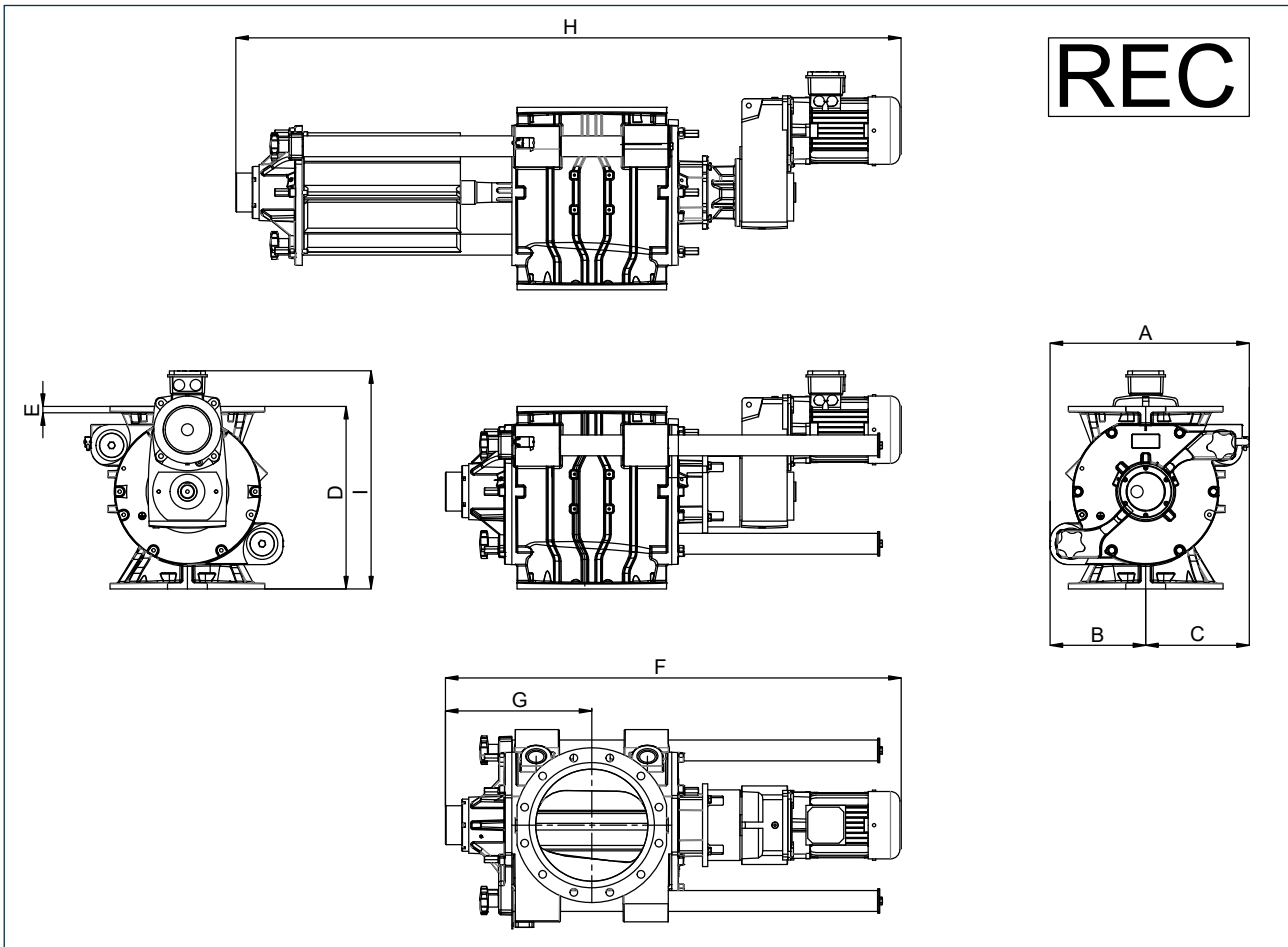
Electrical connections

**Danger - Warning**

it is necessary to bind the motor start enabling signal to the signal provided by the rotation sensor and the cover closure microswitch.

3.1 REC-RES rotary valve overall dimensions


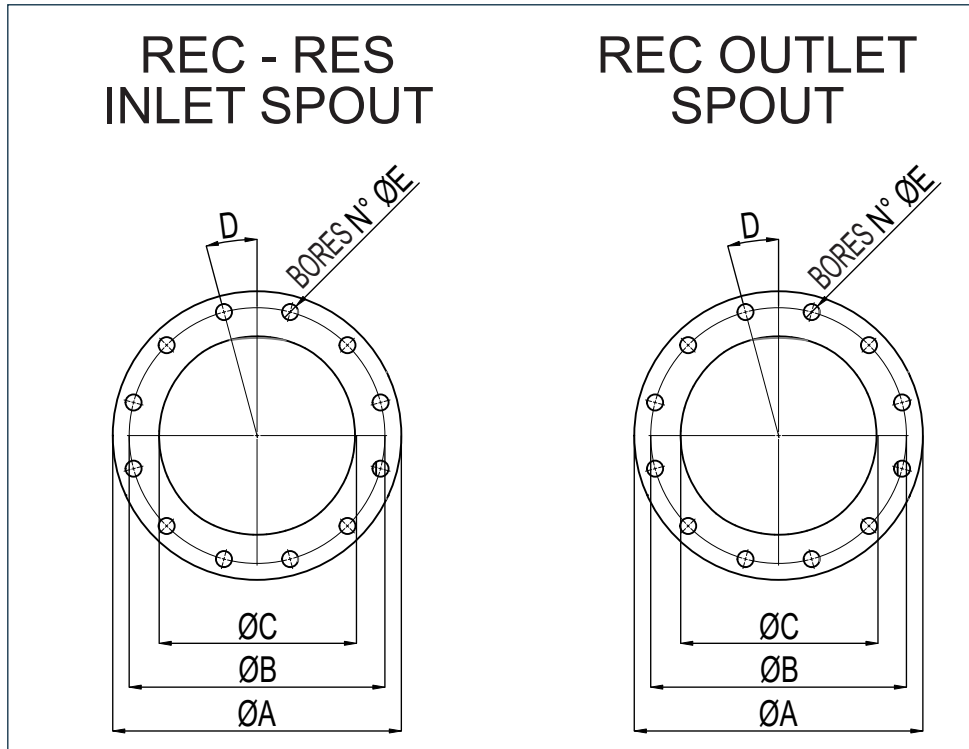
TYPE	A	B	C	D	E	F	G	H	I	J	K	ØL	Kg
RES 05	360	165	195	369	12	950	290	1300	460	305	64	64	125
RES 10	370	170	200	384	14	1000	322	1450	470	314	70	80	145
RES 20	470	225	245	469	17	1250	374	1750	600	377	92	100	275
RES 35	580	275	305	532	19	1350	424	1950	640	430	102	125	425



TYPE	A	B	C	D	E	F	G	H	I	Kg
REC 05	360	165	195	356	12	950	297	1300	445	140
REC 10	370	170	200	371	14	1000	322	1450	455	165
REC 20	470	225	245	439	17	1250	369	1750	470	280
REC 35	580	275	305	525	19	1350	421	1950	630	445

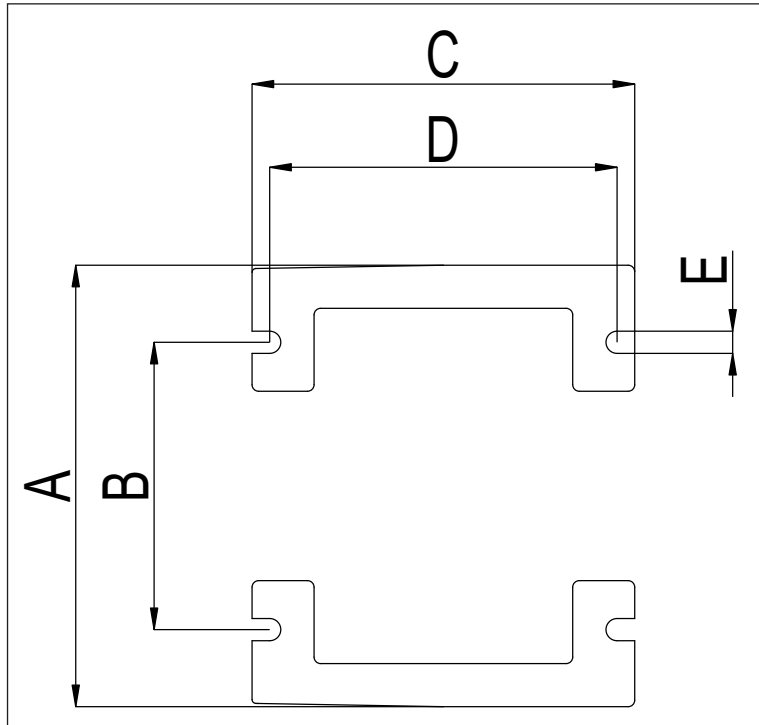
3.1.1 FLANGES

INLET SPOUT RES - REC / OUTLET SPOUT REC

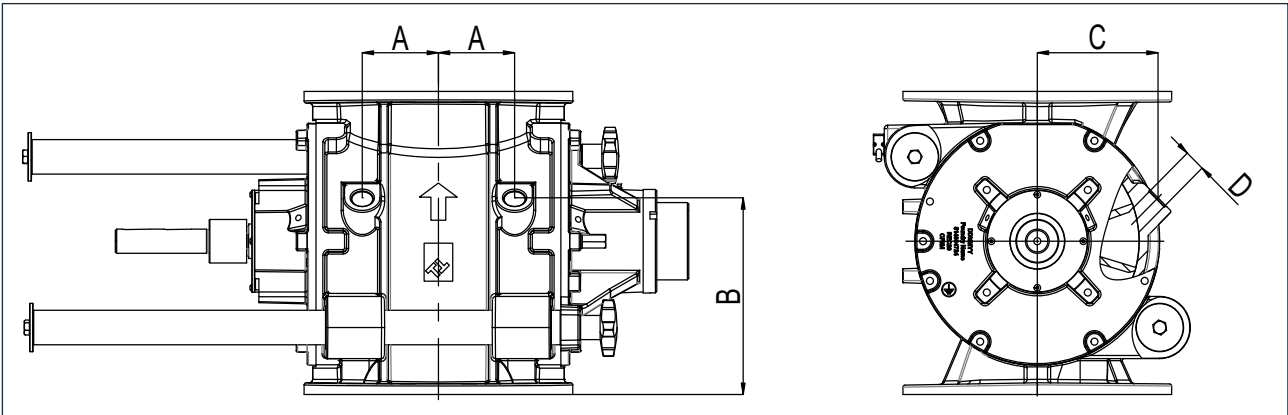
FLANGES EN 1092-1 PN 10 (DIN 2576)


REC - RES INLET SPOUT					
TYPE	ØA	ØB	ØC	D	BORES No. ØE
REC - RES 05	285	240	165	22.5°	No. 8 Ø22
REC - RES 10	340	295	220	22.5°	No. 8 Ø22
REC - RES 20	395	350	270	15°	NO. 12 Ø22
REC - RES 35	445	400	320	15°	NO. 12 Ø22


REC OUTLET SPOUT					
TYPE	ØA	ØB	ØC	D	BORES No. ØE
REC 05	285	240	165	22.5°	No. 8 Ø22
REC 10	340	295	220	22.5°	No. 8 Ø22
REC 20	395	350	270	15°	NO. 12 Ø22
REC 35	445	400	320	15°	NO. 12 Ø22

SUPPORT BASE RES


TYPE	A	B	C	D	E
RES 05	180	88	194	166	11
RES 10	260	132	210	184	11
RES 20	338	220	293	266	17
RES 35	440	276	340	300	17

3.1.2 REC - RES AIR OUTLETS


TYPE	A	B	C	D
REC - RES 05	55	213	150	3/4" ISO 228
REC - RES 10	85	227	153	3/4" ISO 228
REC - RES 20	112	285	177	1" ISO 228
REC - RES 35	160	364	199	1 1/2" ISO 228

<i>ORDER FORM</i>			
	TOREX®	COMPANY _____	
		ORDER _____	
		DATE _____	
EQUIPMENT CODE _____			
Material type:	Material.....	Feed rate.....	Specific weight.....
	Moisture.....%	Material temperature.....°C	Material particle size.....
Material features	Flowing <input type="checkbox"/>	Sticky <input type="checkbox"/>	Hygroscopic <input type="checkbox"/>
	Abrasive <input type="checkbox"/>	Explosive <input type="checkbox"/>	Flammable <input type="checkbox"/>
Installation place:	Internal <input type="checkbox"/>	External <input type="checkbox"/>	Installation place temperature.....°C
Power supply system:	Filter <input type="checkbox"/>	Silo <input type="checkbox"/>	Hopper <input type="checkbox"/>
	Filter pressure..... bar	Other.....	
Rotary valve size:	REC 05 <input type="checkbox"/>	REC 20 <input type="checkbox"/>	RES 05 <input type="checkbox"/>
	REC 10 <input type="checkbox"/>	REC 35 <input type="checkbox"/>	RES 20 <input type="checkbox"/>
		RES 10 <input type="checkbox"/>	RES 35 <input type="checkbox"/>
Drive unit technical features:	ROTATION SPEED:		
	10 revolutions per minute (4-pole 50Hz motor) <input type="checkbox"/>		20 revolutions per minute (4-pole 60Hz motor) <input type="checkbox"/>
	20 revolutions per minute (4-pole 50Hz motor) <input type="checkbox"/>		30 revolutions per minute (4-pole 60Hz motor) <input type="checkbox"/>
	30 revolutions per minute (4-pole 50Hz motor) <input type="checkbox"/>		
	FORCED VENTILATION:		
	10 revolutions per minute with servo-ventilated motor (4-pole 50Hz motor) <input type="checkbox"/>		
	20 revolutions per minute with servo-ventilated motor (4-pole 50Hz motor) <input type="checkbox"/>		
	30 revolutions per minute with servo-ventilated motor (4-pole 50Hz motor) <input type="checkbox"/>		
Casing treatment:	Standard <input type="checkbox"/>	Satin-finished <input type="checkbox"/>	Mirror polishing <input type="checkbox"/>
Rotor treatment:	Standard <input type="checkbox"/>	Satin-finished <input type="checkbox"/>	Mirror polishing <input type="checkbox"/>
Notes:			

