



# PRODUCTION OF PLASTIC EXTRUSION MACHINERY

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# PRODUCTION OF PLASTIC EXTRUSION LINES

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## RSZ CO-EXTRUDER RANGE



The RSZ series of co-extruders satisfies a wide range of needs in terms of quantity and type of extruded thermoplastic resin.

Solid and efficient structures and their constituent elements, motors, reduction units, screws and cylinders are among the best that the market offers, guaranteeing the highest product quality and customer satisfaction.

Control panel with integrated connection allows remote assistance service.

		RSZ 20	RSZ 25	RSZ 30	RSZ 35	RSZ 40
Screw diameter	mm	20	25	30	35	40
L/D		1:25 I 1:30	1:25 I 1:30	1:25 I 1:30	1:25 I 1:30	1:25
Motor power	Kw	2,2	4	4	7,5	7,5
Cylinder zones		2   3	3   3	3   4	3   4	3
Heating power	Kw	2,4   3,6	3,6   3,6	4,5 I 6,0	4,5 I 6,0	4,5
Flange zones	N°	1	1	1	1	1
Flange zones power	Kw	0,8	0,8	0,8	0,8	0,8
Auxiliary zones	N°	3	3	3	3	3
Auxiliary zones power	Kw	1,5	1,5	1,5	1,5	1,5
Working line	mm	1050	1050	1050	1050	1050
Adjustement high	mm	± 90	± 90	± 90	± 90	± 90
Control Panel	inch	7"	7"	7"	10"	10"







## RSZ EXTRUDER RANGE



The RSZ series of extruders includes a range of machines with screw diameter from 45 to 90 mm and L/D 1:25 or L/D 1:30 depending on the kind of material.

All the extruders are equipped by AC motor at direct transmission to the gear-box.

In according to the specific production needs, a dedicated plasticizing screw is designed, manufactured and mounted.

 $\label{thm:control} \mbox{Every extruder is equipped by control panel with integrated connection that allows remote assistance service.}$ 

		RSZ 45	RSZ 50	RSZ 60	RSZ 75	RSZ 90
Screw diameter	mm	45	50	60	75	90
L/D		1:25   1:30	1:25 I 1:30	1:25   1:30	1:25 I 1:30	1:25 I 1:30
Motor power	Kw	11.5   24.0	11.5 I 29.0	15 I 45	30 I 55	55 I 74
Cylinder zones		4   4	4   4	4   5	5 1 6	5 1 6
Heating power	Kw	7,5   8,3	9   10.4	7.2 I 16.7	20   24.7	26,5   32,5
Flange zones	N°	1   1	1   1	1   1	1   1	1   1
Flange zones power	Kw	1.4   1.4	1.4   1.4	2   2	2   2	2   2
Auxiliary zones	N°	4   4	4   4	4 1 6	6   8	8   8
Auxiliary zones power	Kw	3.2   3.2	3.2   3.2	4 1 6	6   8	8   8
Working line	mm	1050	1050	1050	1050	1050
Control Panel	inch	12	12	12	15	15







## **COOLING TANKS**



The cooling tank, type VR, is designed for cooling gaskets, profiles, pipes and all the profiles that do not require a vacuum calibration system.

The tank, made by stainless steel, is mounted on a frame at the base of which wheels are installed for easy handling.

Depending on the geometry of the profile, it is possible to equip the tank with a series of rollers that allow the tank to be kept in water.

If the product does not require any particular pulling force, it is possible, at the exit of the water bath, to equip the tank with a motorised 2-roller pulling system.

		VN 4000	VR 3000
Туре		Nebulizing	Cooling
Cooling length	mm	4000	3000
Vacuum zone	N°	N.A.	N.A.
Vacuum zone lenght	mm/each	N.A.	N.A.
Drying zone	N°	N.A.	N.A.
Drying zone lenght	mm	N.A.	N.A.
Water pump	N°	1	1
Water pump power	Kw/each	0.75	0.75
Vacuum pump	N°	N.A.	N.A.
Vacuum pump power	kW	N.A.	N.A.
Tank collection water	L	75	75
Standard working line	mm	1050	1050
Movement		wheel	wheel
Vertical adjustement	mm	± 50	± 50
Transversal movement	mm	wheel	wheel



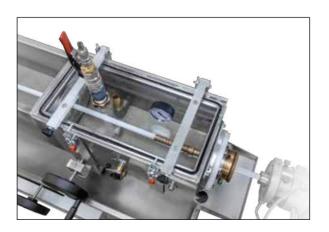


## COOLING AND VACUUM TANKS



The tank type VRC, is indicated for the cooling and calibration of the HDPE, PP and rigid PVC pipes. All made by stainless steel, after the first vacuum zone, within which calibration occurs, is equipped by a tank where, in the first part the extruded product is cooled by immersion in water and, in the second, dried by a blast of air.

		VRC 4000	VRC 6000
Туре		Calibration	Calibration
Cooling length	mm	3000	4500
Vacuum zone	N°	1	2
Vacuum zone lenght	mm/each	500	500
Drying zone	N°	1	1
Drying zone lenght	mm	500	500
Water pump	N°	1	1
Water pump power	Kw/each	0.75	1.5
Vacuum pump	N°	1	2
Vacuum pump power	kW	1.5	1.5
Tank collection water	L	150	200
Standard working line	mm	1050	1050
Movement		track	track
Vertical adjustement	mm	± 50	± 50
Transversal movement	mm	± 15mm	± 15mm





## CALIBRATION UNITS

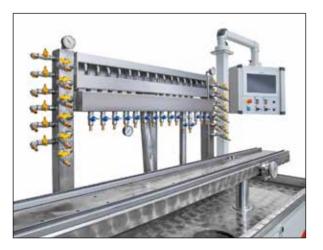


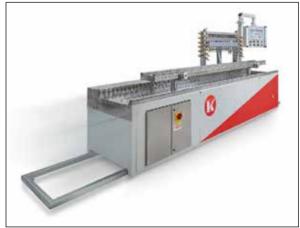
The range of calibration benches, type BPC, meets a wide variety of needs.

The quality of the profile is maintained by appropriate dimensioning and the fact that the unit is equipped with vacuum pumps, water distributors and vacuum distributors, duly calibrated based on the production needs and product dimensions.

It is possible to equip the unit with electric motion callipers for main movements, while final adjustments always rely on the sensitivity of the operator's own hands.

		BPC 3000	BPC 4000	BPC 5000
Platform height	mm	1000	900	900
Calibration base plane	mm	3000	3500	4500
Fixing rail center distance	mm	210	210	300
Longitudinal adjustement	mm	±350	±325	±225
Vertical adjustement	mm	±50	±60	±70
Transversal adjustement	mm	±15	±15	±15
Vacuum pump	N°	1	2	2
Vacuum pump power	Kw	1,5	1,5	3
Water outlets series H20	N°	1	1	2
Water outlets H20	N°	15	15	10
Vacuum outlets series	N°	1	2	2
Vacuum outlets	N°	15	12	10
Tank collection water	Lt	75	150	170







## HAUL-OFF UNITS



TeKnomast's range of belt or caterpillar haul-off are suitable for pulling profiles and pipes made of plasticised or rigid materials.

A precise pull speed adjustment system allows it to be matched to the extrusion speed, thus avoiding dimensional variations of the extrudate.

The compact, ergonomic design of the frame allows quick and safe access to operating controls and adjustment components.

The management of the haul-off is done by a control panel, located at the front of the unit.

TR-CI 400x50 TR-TP 600x100 TR-TP-BS900x200 TR-CI-BS900x200

TR-RU Ø100

Type of Haul-off		Rubberised rollers	Belts	Rugs	Rugs	Tracks
Motor	N°	1	2	2	2	2
Motor power	Kw	0.091	0.22	0.75	1.5	0.75
Contact surface	mm	N.A	400x50	600x100	900x200	900x200
Rated speed	m/min	10	200			8
Pulling force	kg	35	8	240	480	780
Tilting		N.A	N.A	N.A	YES	YES
Max opening	mm	25	50	50	100	250







## **CUTTING DEVICES**



The cutting devices, proposed by TeKnomast, represent an excellent combination of the production requirements typical of an extrusion line (practicality, functionality and management simplicity) and operator safety.

The numerous production parameters that determine the choice of cutting unit have ensured that TeKnomast offers solutions with both simple cutting systems and combined cutting systems.

# TECHNICAL DATA SHEET 1 TV SC 1 TV

TV SC 2

LB 1

LB 2

TV 1

Туре		Fast cutting	Fast cutting and haul-off	Fast cutting and haul-off	Hot blade and circular blade	Guillotine and circular blade
Motor power	Kw	3	0.3	1	1.5	1.5
Diameter cuttable	mm	30	2÷18	2÷25	70/66	24/66
Cutting frequency	Cuts/s	50	-	65	-	-







# WINDING MACHINE FOR TUBES AND FLEXIBLE PROFILES

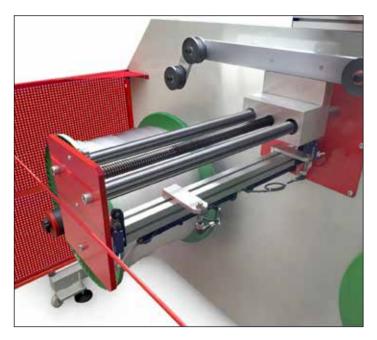


Machine for winding gaskets, profiles and small tubes.

The range of the winding machine proposed by TeKnomast, provides single or double reel solutions, capable of winding reels with diameters up to 900mm.

An optical reading device allows a constant winding tension, thus avoiding material stretching problems.

		AV-TK 1-600	AV-TK 2-600	AV-TK 1-900	AV-TK 2-900
Reel	N°	1	2	1	2
Motor	N°	1	2	1	2
Motor Power	Kw/each	0.37	0.37	0,55	0,55
Min. coil diameter	mm	250	250	250	250
Max. coil diameter	mm	600	600	900	900
Coil width	mm	From 200 to 300			
Rated speed	m/min	1-25	1-40	1-25	1-40







## **COLLECTION SYSTEM**



### TILT FOR BSR SERIES

Item recommended for collecting rigid profiles and tubes.

The platform onto which the extruded product passes is made of stainless steel to prevent the profile from becoming dirty.

Movement is synchronised with the other components of the line and controlled by a pneumatic system.

Depending on the type of product and packaging requirements, TeKnomast offers two types of collection system:

- Tilting machine
- Collection table



### SC SERIES COLLECTION TABLE

This piece of equipment uses a conveyor belt and collection table to help create bundles of rigid or soft extruded material.

Based on the type of extrusion, the bundles can be moved from side to side using a series of motorised straps or a motorised travel damper.



# EXTRUSION LINE FOR RIGID PROFILES



The best extrusion line for the production of rigid profiles is configured by identifying the correct combination of machines, dimensioned on the basis of the profile's geometry, production needs and the type of material to be extruded.

#### **APPLICATIONS**

- Profiles for electrical applications
- Profiles for design/furniture applications
- Technical profiles
- Profiles for building applications

# EXTRUSION LINE FOR SOFT PROFILES



The attention paid to the definition of each of the individual components that make up the line, especially the profile of the plasticisation screws, temperature management, the identification of the cooling, pulling, cutting and collection system most recommended for a specific type of profile, has ensured that TeKnomast extrusion lines stand out for their reliability and performance.

### **APPLICATIONS**

- Profiles for design/furniture applications
- Gaskets
- Medical devices
- Tubing of various dimensions and types
- Profiles for the agricultural sector



# EXTRUSION LINE FOR RIGID PIPES



### LINE COMPOSITION

- EXTRUDER
- VRC
- TR TP
- TV-1

# EXTRUSION LINE CUSTOMIZED



TeKnomast offers the opportunity to develop complete or partial extrusion lines for special operations, in a vision of partnership with the customer.

These projects are developed both with laboratory lines, at research centres or companies that want to reproduce a redimensioned version of their the industrial process, and with companies looking for a partner that is able, thanks to its expertise, to develop a project beyond the normal standards - "As you want".



# TEKNOMAST is

