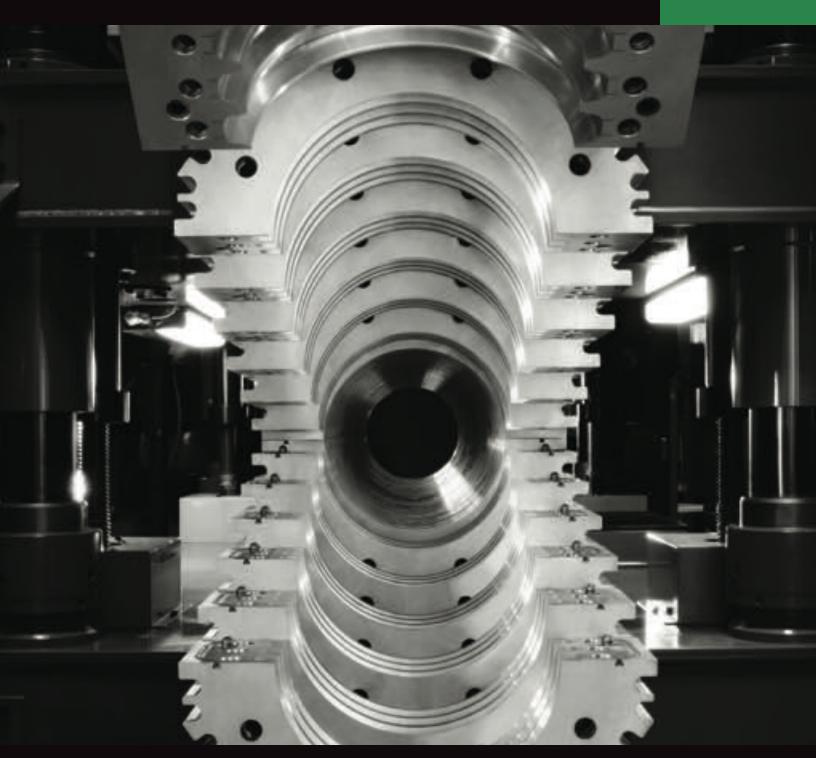




## Vertical Construction Corrugators

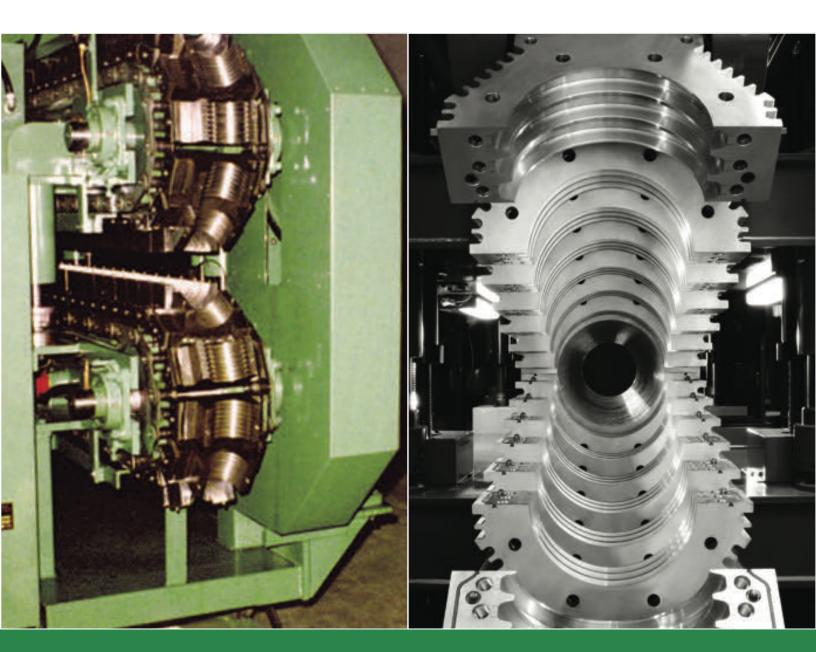
**TECHNOLOGY** SHOWCASE





# Establishing the Pillars for Excellence

In 1974 Corma founder and President, Manfred Lupke, designed, produced and delivered the M600: the world's first corrugator with vertical construction and independent mold block carriers. This vertical construction is the foundation of our machines while continuing to embrace technological changes evolving and improving our design. This unique construction and its benefits are in every corrugator we have delivered around the world to our customers.



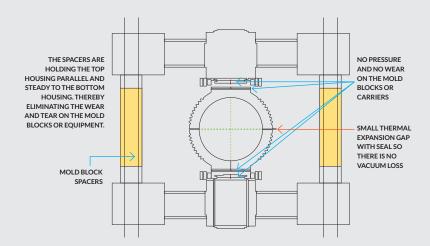
Corma M600 — the world's first corrugator with vertical construction with independent mold block carriers produced in 1974.

Mold block tunnel on Corma 30 and 40 Series Corrugator. Our drive sprocket system pushes the mold blocks and carriers evenly on all four corners to prevent titling and jamming of the machine.

# Why Vertical Construction?

#### 1. LONGEVITY

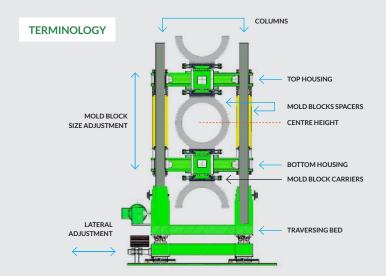
Wear and tear is low on Corma corrugators due to our vertical design. A small gap between the top and bottom mold blocks is left when they are closed, allowing for expansion and free movement. Specifically designed column spacers are used for each mold block size to create the perfect mold block closing position and pressure. Our drive system applies force at four points of contact to the mold block carriers pushing them around evenly, preventing them from tilting or jamming.



#### 2. ACCESSIBILITY AND SIMPLICITY

The vertical design gives access to and around the machine allowing for easy maintenance and setup. Having a clear and uninterrupted view of the mold blocks against the tooling decreases the time for size change setups and prevents damage from incorrect alignment.

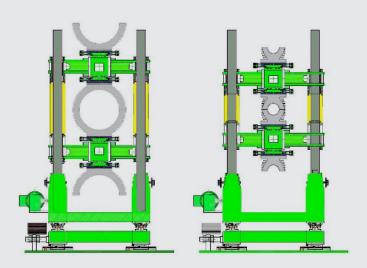
All our corrugators have lateral, as well as center height adjustment, which allows for accurate centralization to occur. This allows for control of concentricity between the mold block and die tooling, and during manufacturing.



#### PRODUCTION VERSATILITY

The vertical construction enables Corma corrugators to produce a wide range of pipe sizes and specialized profiles. Together with our Unified Mold Block System and Mold Block Adaptor Shoes we can offer our customers a highly versatile production capability, allowing mold blocks to be shared across machine sizes, minimizing capital investment of mold blocks, while still preparing for future expansion.

The vertical design allows for our machines to have a much smaller footprint. Compared to a horizontal machine that can manufacture pipe in similar ranges, the Corma design footprint is 50% less. Utilizing the wasted space above and below allows for efficient use of the factory floor space.



CORMA'S VERTICAL CONSTRUCTION IS DESIGNED TO PROVIDE OUR CUSTOMERS WITH VERSATILE PRODUCTION CAPABILITIES WHILE MINIMIZING MOLD BLOCK INVESTMENT REQUIREMENTS

## Additional **Benefits**

The vertical design enables a single person to remove and install the mold blocks as pairs on the operation side of the machine, without the need for tools or fixings.

The vertical design ensures that the top and bottom housings and mold block chains are perfectly balanced. This reduces the stress and fatigue on the machine allowing for smooth rotation regardless of mold block size.

The vertical design allows for all services to be accessible from the sides, negating the need for them to rotate with the mold blocks. The vacuum is provided to the mold blocks directly from the top and bottom housings, giving the best vacuum levels for processing and product quality.

### **Technical** Data

Corrugator Model Number* Vacuum Forming or Blow Molding	Pipe Range				Maximum		Maximum	
	mm		inches		Line Speed**		Output**	
	Min. I.D.	Max. O.D.	Min. I.D.	Max. O.D.	M/min	ft/min	Kg/hr	lbs/hr
054	3	40	0.12	1.6	50	165	40	88
130	6	110	0.25	4.5	55	180	360	790
430	6	160	0.25	6.3	35	115	450	990
630***	50	200	2.0	8.0	35	115	1040	2300
830***	50	300	2.0	12.0	35	115	1040	2300
840	50	300	2.0	12.0	25	80	840	1850
1030	50	365	2.0	14.4	30	100	750	1650
1230***	50	500	2.0	20.0	27	90	910	2000
1530***	50	700	2.0	27.5	26	85	1000	2200
2430	100	800	4.0	32.0	10	33	1300	2860
3630	100	1200	4.0	48.0	6	20	1300	2860
4830	200	1500	8.0	60.0	5	16.5	1400	3100
6030	450	1800	18.0	72.0	3	10	1500	3300
P 30/60	750	1800	30.0	72.0	1	3.3	1300	2860
P 30/120	750	3000	30.0	120.0	1	3.3	1500	3300
Vertical Corrugator Model Number								
V 053	1	20	0.04	0.8	50	165	30	66
V 130	4	110	0.16	4.5	50	165	215	475
Rib-Pipe Model Number								
R 2030	100	700	4.0	28.0	10	33	1100	2420
R 3030	100	1000	4.0	40.0	10	33	1300	2860

Mold blocks are interchangeable within family (shaded) groupings. Also, mold blocks from smaller corrugators can be used on larger corrugators, using Corma's Unified Mold Block System and Mold Block Adapter Shoes.

#### Head office

#### International Sales and Service Offices

10 McCleary Court Concord (Toronto) Ontario, Canada L4K 2Z3 T 905 669 9397 F 905 738 4744

E info@corma.com

Corma Deutschland GmbH Oststraße 54 40211

Düsseldorf T 49 211 434688 Germany F 49 211 9350150

Corma India

1123, Regus Grandeur, Earth Arise Building, S.G Road, Makarba

Ahmedabad - 380015 T 91 79 6134 4542 Gujarat, India E bpawar@corma.com Corma Latin America

Avenida los Eucaliptos 3-C,

Brisas de las Mercedes T 503 2566 2297 Zaragoza, La Libertad F 503 7797 5667 E fsolano@corma.com El Salvador, CA

Corma Shanghai Co., Ltd.

759 Qiangye Road

Sheshan Industrial Zone Songjiang District, Shanghai 201602, P.R. China

T 86 21 5779 4175 & 6 F 86 21 5779 4159 E ryang@corma.com

Elements of the technology, operations and applications outlined herein are patented worldwide in selected countries, and are the sole property of Corma Inc. Any publication in whole or in part is subject to authorization by Corma Inc.

Corma reserves the right, in the interest of technical advancement, to change the designs and specifications without prior notice.

Printed in Canada. © 08-2022 by Corma Inc.

Line speeds and outputs are theoretical and depend on: pipe diameter; type of plastic; machine model; cooling options; mold track length; temperature and quantity of cooling water; profile configuration; extruder capacity, etc.

 $<sup>^{***}\ 630\</sup>text{-}12, 830\text{-}12, 1230\text{-}12\ and\ 1530\text{-}12\ line\ speed\ and\ output\ based\ on\ high\ speed\ corrugator\ configuration.$