

**FRECH®**



# Welcome to the World of Die Casting

QualiCast

with locking forces

from

1.250kN—8.3000kN

Our QualiCast machine series ist the economic solution in the smaller size range of cold chamber die casting machine. With many of the features of the larger FRECH machines, the QualiCast line design is based on FRECH machine technology. With or without automation, the machine produces at highest quality and secures shortest cycle time.



## Highlights

### Locking unit

Hardened and chrome plated tie bars

Manual tie bar extraction and automatic central lubrication in basic machine

Closing system with encoder for optimized opening and closing

Opening and closing controlled by proportional valve for fast and careful movement

Hydraulic ejector with encoder for easy and precise adjustment, ejector repeat circuit

1 fixed shot position, or adjustable in 70mm steps, or customer specific steps

Hardened guide rails under locking unit

Integrated die protection adjustable via machine control

Electric die height adjustment

### Control

Datalogic– designed and developed in Germany, based on the same software core as the larger German machines

High resolution colour in machine base

### Machine base

Warp resistant, stable welding design due to ribs and with integrated hydraulic tank

Cable channels protected in machine base

### Safety Concept

Complete closed locking unit, controlled by limit switches

Easy access for adjustment of machine operation

### Injection unit

Use of proven components of well-known European manufacturer

Robust cylinder-design

Inner multiplier for extreme fast pressure-rise

Fast plunger velocity

External adjustment of 2nd phase by non-contact encoder

3-phases injection system

### Hydraulic

Compact block-design of injection unit

Pump drive with proven vane pump

System designs for the use of HFC or mineral oil

High capacity cooler for inlet temperatures up to 35 °C

Accumulator-safety-valve according TÜV-standard

Piston accumulator with Nitrogen-pressure-control

Maintenance-friendly design

Separate oil cleaning filter system

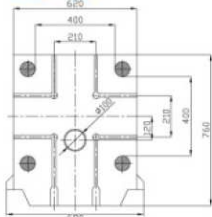


# QualiCast

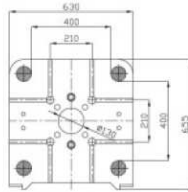


QualiCast		1 daN=1 kp 1 kN=100 kp	QC 130	QC 210	QC 380	QC 640	QC 830
Locking force		kN	1.250	2.200	3.800	6.400	8.300
Closing stroke		mm	340	430	600	750	825
Ejector force		kN	80	110	180	300	364
Ejector stroke		mm	90	100	125	165	180
Die Height min-max		mm	170 – 500	250 – 600	250 – 700	300 – 900	350 – 1,000
Size of platen		mm	620 x 620	755 x 755	1.015 x 1.015	1.255 x 1.255	1.400 x 1.400
Space between tie bars		mm	400	500	675	825	925
Tie bar diameter		mm	75	85	115	150	165
Shot position	Standard	mm	- 105	- 120	- 125	- 175	- 250
	Adjustable		0, -120	0 to -210	0 to -280	0 to -350	
Maximum casting force		kN	200	250	355	588	756
Injection plunger diameter		mm	40 – 70	40 – 70	50 – 80	60 – 110	70 – 120
Casting stroke		mm	310	350	500	650	700
Casting volume		cm <sup>3</sup>	260 – 795	293 – 898	654 – 1.676	1.225 – 3.403	1.796 – 4.435
Specific injection pressure		daN/cm <sup>2</sup>	1.592 – 520	1.989 – 650	1.808 – 706	2.080 – 749	1.964 – 795
Casting area from - to		cm <sup>2</sup>	79 – 240	111 – 338	210 – 538	308 – 854	423 – 1.044
System pressure		bar	105	140	160	160	160
Power Consumption		kVA	21	26	28	43	53
Weight		kg	7,000	8,000	15,000	24,000	36,000
Dimension (LxWxH)		mm	4600 x 1600 x 2500	5150 x 1900 x 2500	6400 x 2600 x 3280	7500 x 2900 x 3500	8400 x 3200 x 3700

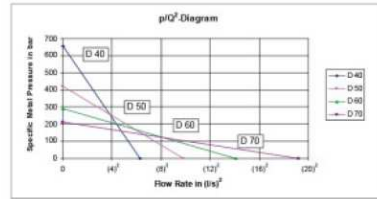
## QC 130



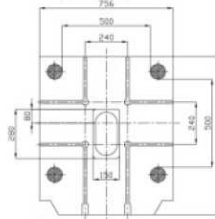
Fixed platen



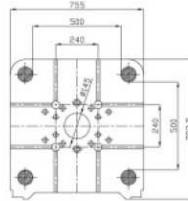
Movable platen



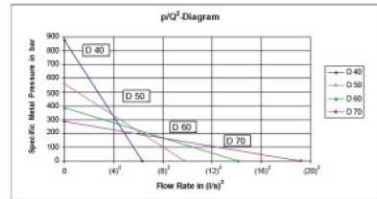
## QC 210



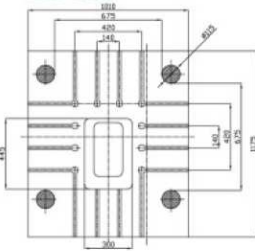
Fixed platen



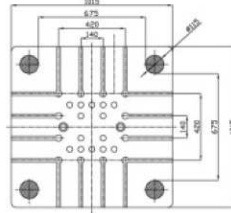
Movable platen



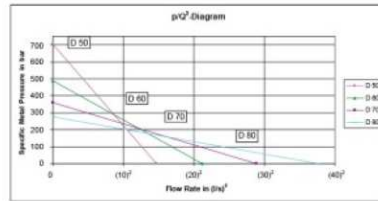
## QC 380



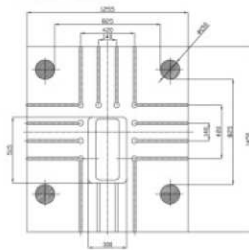
Fixed platen



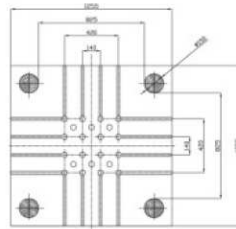
Movable platen



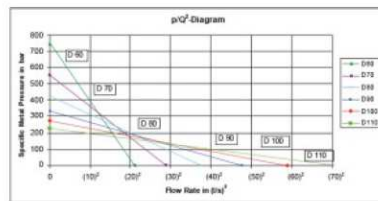
## QC 640



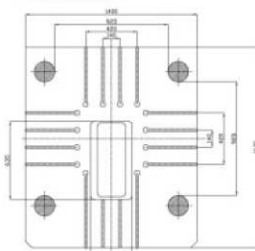
Fixed platen



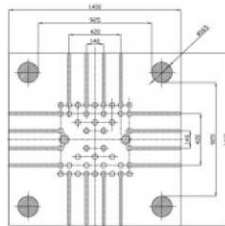
Movable platen



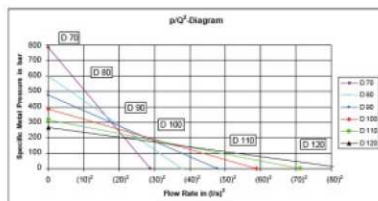
## QC 830



Fixed platen



Movable platen



## Automation

### Gripmat

Motorised casting extractor unit available in two versions. Simple to operate, quick to install and flexible enough to meet all requirements.



### Spraymotion

Motorised spraying device available in single axis or 2-axis format. Key features of the unit are its high positional accuracy and rapid dynamics.



### Feedmat 3

Dosing device for aluminium alloys in robust construction. Electrically driven with user-friendly controls and a high dosing precision.



### Aluminium Dosing Furnace

High dosing precision through integrated, exact quantity measurement.



### Oil and Water Based Temperature Control Device

Reduces heating times, extends the life time of the die.



### Magnesium Dosing Furnace

Safe and precise dosing.



Frech U.S.A. Inc.  
6000 South Ohio Street  
Michigan City, Indiana 46360  
U.S.A.  
Phone: 001 - 219 - 874 - 28 12

[www.frechusa.com](http://www.frechusa.com); [www.frech.com](http://www.frech.com)