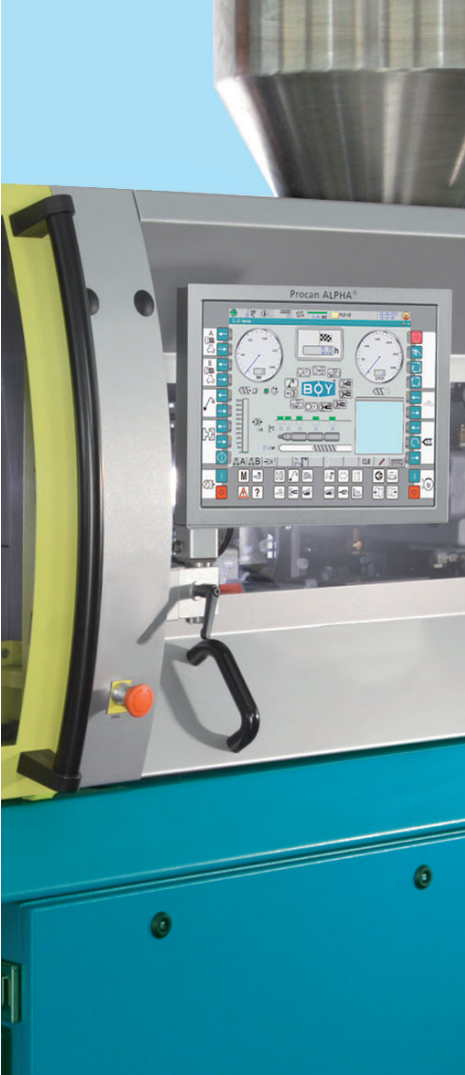


## Compact Range



## Compact range

BOY has become the specialist in the manufacturing of injection moulding machines with clamping forces below 1000 kN. BOY injection moulding machines excel in high precision, consistency, compact design, low energy consumption, and cantilevered two-platen clamping units.

Because of the very favourable price / performance ratio, we have been able to sell nearly 40,000 machines throughout the world since 1968. The BOY brand is very well recognized worldwide and has been present on all continents for 40 years.

## Special injection moulding processes

Besides the standard machines for thermoplastic processing with horizontally arranged clamping units, we offer machines for special applications such as Duroplast, Elastomer, LSR, and machines with vertical clamping units for injection moulding.



Elastomer processing



Liquid silicone processing (LSR)



Ceramic and metal powders



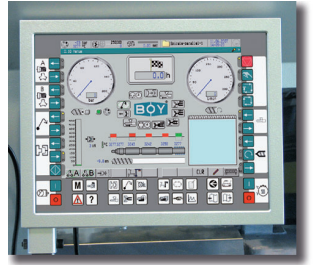
Thermoset processing

Additional processing capabilities:

- PVC
- PET
- Insert technology
- Cleanroom technology
- Micro injection molding

# Procan ALPHA® - The New Control System

With the development of this control system, BOY has set new standards for precision, repeatability and speed. A patented, freely programmable hardware module frees the control system from all time-relevant tasks and performs these same tasks without delay and with very high precision. The patented iteratively learning controller ensures a more exact and quicker retracing of the specified set values. The **Procan ALPHA®** unit is now even easier to use due to the well arranged 15" full-touch display. BOY series A injection moulding machines are equipped with this control system.



Series M machines feature the **Procan MD®** control system.

The **dipronic®** hardware control system is only available on the BOY 22 horizontal machine.

## Type / Model



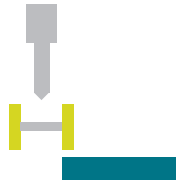
BOY 12 A  
BOY 12 M  
BOY 22 A  
BOY 22 M  
BOY 22 D

BOY 22 A VH  
BOY 22 M VH



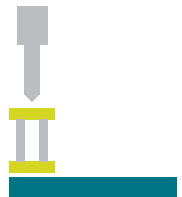
BOY 35 A  
BOY 35 M  
BOY 55 A  
BOY 55 M  
BOY 90 A  
BOY 90 M

BOY 22 A HV  
BOY 22 M HV



BOY 22 A VV  
BOY 22 M VV

BOY 35 A VV  
BOY 35 M VV  
BOY 55 A VV  
BOY 55 M VV



## Injection units

EUROMAP	BOY 12	BOY 22	BOY 35	BOY 55	BOY 90
11	■	—	—	—	—
15	■	■	■	—	—
18	■	■	■	—	—
52	—	■	■	■	—
79	—	—	—	■	—
92	—	—	■	—	—
205	—	—	—	■	■
370	—	—	—	—	■

■ Standard

■ Alternative equipment

## Plasticizing units

Injection units		15	52	79	92	205	370
Thermo-plastic <sup>(1)</sup>	12 mm	■	—	—	—	—	—
	14 mm	■	—	—	—	—	—
	18 mm	■	■	—	—	—	—
	22 mm	—	■	—	—	—	—
	24 mm	—	■	■	■	—	—
	28 mm	—	■	■	■	■	—
	32 mm	—	■	■	■	■	—
	36 mm	—	—	—	—	—	■
	38 mm	—	—	—	—	■	—
	42 mm <sup>(2)</sup>	—	—	—	—	■	■
Thermoset	18 mm	—	■	—	—	—	—
	24 mm	—	■	—	—	—	—
	28 mm	—	—	■	■	—	—
	32 mm	—	—	—	—	■	—
	42 mm	—	—	—	—	—	■
Elastomer	22 mm	—	■	—	—	—	—
	24 mm	—	—	—	—	—	—
	28 mm	—	■	—	—	—	—
	32 mm	—	—	■	■	■	—
	38 mm	—	—	—	—	■	—
	42 mm	—	—	—	—	■	■
Silicone (LSR)	14 mm	■	—	—	—	—	—
	18 mm	—	■	—	—	—	—
	22 mm	—	■	—	—	—	—
	32 mm	—	■	■	■	—	—
	38 mm	—	—	—	—	—	—
	42 mm	—	—	—	—	■	—
	48 mm	—	—	—	—	—	■
PVC-unit	22 mm	—	■	—	—	—	—
	24 mm	—	■	—	—	—	—
	28 mm	—	—	■	■	—	—
	32 mm	—	—	—	■	■	—
	38 mm	—	—	—	—	■	—
	42 mm	—	—	—	—	—	■

■ Standard

■ Alternative equipment

(1) = Also available as high wear-resistant unit

(2) = High wear-resistant unit only for 370

# Euromap Size

## Injection unit for processing thermoplastics

Screw diameter	mm	
Screw- L/D-ratio		
Max. stroke volume (theoretical)	cm <sup>3</sup>	
Max. shot weight in PS	g	
Injection force	kN	
Injection flow	g/s	
Max. spec. injection pressure	bar	
Max. screw stroke	mm	
Nozzle force / contact pressure	kN	
Nozzle retraction stroke	mm	
Screw torque	Nm	
Screw speed (infinitely variable)	U / min.	standard alternatively
Screw pullback force	kN	
Heating power (Nozzle + Cylinder)	W	
Hopper capacity	litre	

## Clamping unit

Clamping force	kN	
Tie bar clearance	mm	(h x v)
Max. platen daylight	mm	
Max. opening stroke (adjustable)	mm	
Min. mould height	mm	
Mould opening force	kN	
Mould closing force	kN	
Ejector stroke (max.)	mm	
Ejector force pushing / pulling	kN	

## General

Installed driving power	kW
Installed total power	kW
Hydraulic system pressure	bar
Oil tank capacity	litre

## Dimensions and weights

Dimensions (LxWxH) / Footprint	mm / m <sup>2</sup>
Total weight net (without oil)	kg
Total weight gross (without oil)	kg
Case dimensions (LxBxH) approx.	mm

# BOY 12



129-11

129-15

129-18

12	14	18
18	18	20
4,5	6,1	10,1
4,45	5,6	9,6
27,7	37,1	45,7
18,5	30,6	45,1
2450	2413	1795
40	40	40
36 (120 bar)	36 (120 bar)	36 (120 bar)
180	180	180
50 (40 bar)	75 (68 bar)	130 (120 bar)
max. 500	max. 500	max. 500
34,3	34,3	34,3
235+465+2x450+850	235+465+2x450+850	235+465+650+700+1200
7,5	7,5	7,5

129	129	129
259	259	259
300	300	300
200	200	200
100	100	100
23	23	23
15	15	15
80	80	80
13,5 / 9	13,5 / 9	13,5 / 9

5,5	5,5	5,5
7,95 / 400 V	7,95 / 400 V	8,70 / 400 V
160	160	160
115	115	115

2280 x 810 x 1648 / 1,85

760

920

2300 x 960 x 1600

# BOY 22 / BOY 22 HV / BOY 22 VV / BOY 22 VH

## 220-15

## 220-18

with injection unit 15 and 18

14	18
18	20
6,1	10,1
5,6	9,6
37,1	45,7
30,6	45,1
2413	1795
40	40
36	36
180	180
75 (68 bar)	130 (120 bar)
10-500	10-500
34,3	34,3
$235+465+2 \times 450+850=2450$	$235+465+700+650+1200=3250$
13	13

220	220
254	254
400	400
200	200
200	200
40	40
17,6	17,6
80	80
18,1/12	18,1/12

5,5	5,5
7,95 / 400 V	8,75 / 400 V
160	160
115 / 105 <sup>1</sup>	115 / 105 <sup>1</sup>

### BOY 22

### BOY 22 VV

### BOY 22 VH

2280 x 810 x 1653	1891 x 815 x 2548 <sup>2</sup>	1843 x 815 x 1878 <sup>3</sup>
770	860	860
930	1090	1080
2300 x 960 x 1600	2050 x 1040 x 2110	2130 x 1050 x 2030

1) VV and VH machines

2) max. 2986 mm

3) max. 1937 mm

# BOY 22 / BOY 22 HV / BOY 22 VV / BOY 22 VH

## 220-52

with injection unit 52 (standard)

18	22
20	17,5
20	30
19,4	28,4
65,8	65,8
35,1	49,7
2587	1732
80	80
48	48
180	180
130 (120 bar)	220 <sup>1</sup> / 360 <sup>2</sup>
10-500	10-400 <sup>1</sup> 10-250 <sup>2</sup>
45,7	45,7
D = 3700    A/M = 3250	D = 4000    A/M = 3550
13	13

220	220
254	254
400	400
200	200
200	200
40	40
17,6	17,6
80	80
18,1/12	18,1/12

5,5	5,5
8,7    D= 9,2	9,05    D = 9,5
160	160
115 / 105 <sup>3</sup>	115 / 105 <sup>3</sup>

## BOY 22

2280 x 810 x 1653 / 1,85

770

930

2300 x 960 x 1600

1) when using a hydraulic motor with a pump volume of 100 cm<sup>3</sup>

2) when using a hydraulic motor with a pump volume of 160 cm<sup>3</sup>



with injection unit 52 (standard)

24	28	32
22	18,6	16,3
36	49	64
34	47	61,6
65,8	65,8	65,8
59,4	87,0	102,0
1455	1069	818
80	80	80
48	48	48
180	180	180
220 <sup>1</sup> / 360 <sup>2</sup>	220 <sup>1</sup> / 360 <sup>2</sup>	220 <sup>1</sup> / 360 <sup>2</sup>
10 - 400 <sup>1</sup>	10 - 400 <sup>1</sup>	10 - 400 <sup>1</sup>
10-250 <sup>2</sup>	10-250 <sup>2</sup>	10-250 <sup>2</sup>
45,7	45,7	45,7
$200 + 700 + 2 \times 1250 + 2400 = 5800$		
13	13	13

220	220	220
254	254	254
400	400	400
200	200	200
200	200	200
40	40	40
17,6	17,6	17,6
80	80	80
18,1/12	18,1/12	18,1/12

5,5	5,5	5,5
11,3 / 400 V	11,3 / 400 V	11,3 / 400 V
160	160	160
115 / 105 <sup>3</sup>	115 / 105 <sup>3</sup>	115 / 105 <sup>3</sup>

### BOY 22 VV

### BOY 22 VH

1891 x 815 x 2548<sup>4</sup> / 1,54

1843 x 815 x 1878<sup>5</sup> / 1,50

860

860

1090

1080

2050 x 1040 x 2110

2130 x 1050 x 2030

3) VV and VH machines

4) max. 2986 mm

5) max. 1937 mm

# BOY 35

## 350-52

with injection unit 52

18	22
20,0	17,5
20	30
19,4	28,4
65,8	65,8
35,1	49,7
2587	1732
80	80
48	48
180	180
130 (120 bar)	220 <sup>1</sup> / 360 <sup>2</sup>
10-500	10-400 <sup>1</sup> 10-250 <sup>2</sup>
45,7	45,7
200+450+700+650+1250=3250	200+450+750+750+1400=3550
13	13

350	350
280 x 254	280 x 254
500	500
300	300
200	200
38	38
28	28
80 (130)	80 (130)
23,8 / 15,8 (23,8 / 15,8)	23,8 / 15,8 (23,8 / 15,8)

7,5	7,5
10,75 / 400V	11,05 / 400V
210	210
115	115

2389 x 886 x 1918 / 2,12

1150

1310

2300 x 960 x 1750

1) when using a hydraulic motor with a pump volume of 100 cm<sup>3</sup>



## 350-92

with injection unit 92 (standard)

24	28	32
22,0	18,6	16,3
43,0	58,5	76,5
41	55,8	73,7
97	97	97
53,1	71,8	107,4
2146	1577	1207
95	95	95
48	48	48
180	180	180
280 <sup>1</sup> / 430 <sup>2</sup>	280 <sup>1</sup> / 430 <sup>2</sup>	280 <sup>1</sup> / 430 <sup>2</sup>
10-250 <sup>2</sup>	10-250 <sup>2</sup>	10-250 <sup>2</sup>
10-400 <sup>1</sup>	10-400 <sup>1</sup>	10-400 <sup>1</sup>
45,7	45,7	45,7
200 + 700 + 2 x 1250 + 2400 = 5800		
20	20	20

350	350	350
280 x 254	280 x 254	280 x 254
500	500	500
300	300	300
200	200	200
38	38	38
28	28	28
80 (130)		
23,8 / 15,8		(23,8 / 15,8)

7,5	7,5	7,5
13,3 / 400V	13,3 / 400V	13,3 / 400V
210	210	210
115	115	115

2389 x 886 x 1918 / 2,12

1150

1310

2300 x 960 x 1750

2) when using a hydraulic motor with a pump volume of 160 cm<sup>3</sup>

# BOY 35 VV

## 350-52

### with injection unit 52

18	22
20,0	17,5
20	30
19,4	28,4
65,8	65,8
35,1	49,7
2587	1732
80	80
48	48
180	180
185 (80 cm <sup>3</sup> )	220 <sup>1</sup> / 360 <sup>2</sup>
10-500	10-400 <sup>1</sup> 10-250 <sup>2</sup>
45,7	45,7
200+450+700+650+1250=3250	200+450+750+750+1400=3550
-	-

350	350
280 x 254	280 x 254
500	500
300	300
200	200
38	38
28	28
80	80
23,8 / 15,8	23,8 / 15,8

7,5	7,5
10,75 / 400V	11,05 / 400V
210	210
105	105

2068 x 950 x 2740<sup>3</sup> / 1,96

1380

1610

2190 x 1080 x 2250

1) when using a hydraulic motor with a pump volume of 100 cm<sup>3</sup>

2) when using a hydraulic motor with a pump volume of 160 cm<sup>3</sup>

# 350-92



with injection unit 92 (standard)

24	28	32
22,0	18,6	16,3
43	58,5	76,5
41	55,8	73,7
97	97	97
53,1	71,8	107,4
2146	1577	1207
95	95	95
48	48	48
180	180	180
280 <sup>1</sup> / 430 <sup>2</sup>	280 <sup>1</sup> / 430 <sup>2</sup>	280 <sup>1</sup> / 430 <sup>2</sup>
10-250 <sup>2</sup>	10-250 <sup>2</sup>	10-250 <sup>2</sup>
10-400 <sup>1</sup>	10-400 <sup>1</sup>	10-400 <sup>1</sup>
45,7	45,7	45,7
200 + 700 + 2 x 1250 + 2400 = 5800		
-	-	-

350	350	350
280 x 254	280 x 254	280 x 254
500	500	500
300	300	300
200	200	200
38	38	38
28	28	28
80	80	80
23,8 / 15,8	23,8 / 15,8	23,8 / 15,8

7,5	7,5	7,5
13,3 / 400V	13,3 / 400V	13,3 / 400V
210	210	210
105	105	105

2068 x 950 x 2740<sup>3</sup> / 1,96

1380

1610

2190 x 1080 x 2250

3) max. 3304 mm

# BOY 55

## 550-52

### with injection unit 52

18	22
20,0	17,5
20,0	30,0
19,4	28,4
65,82	65,82
35,1	49,7
2587	1732
80	80
48	48
180	180
130 (120 bar)	220 <sup>1</sup> / 360 <sup>2</sup>
10-500	10-400 <sup>1</sup> 10-250 <sup>2</sup>
45,7	45,7
200+450+700+650+1250=3250	200+450+750+750+1400=3550
13	13

550	550
360 x 335	360 x 335
650	650
400	400
250	250
38	38
24,4	24,4
80 (130) (150)	
20,4 / 13,5 (20,4 / 13,5) (42,7 / 30)	

### optional with increased speeds

11 / 15 <sup>3</sup>	11 / 15 <sup>3</sup>
16,8 / 20,8 <sup>3</sup> / 400 V	16,8 / 20,8 <sup>3</sup> / 400 V
180	180
200	200

3250 x 1105 x 2040 / 3,59

2250

2580

3450 x 1160 x 1920

1) when using a hydraulic motor with a pump volume of 100 cm<sup>3</sup>

2) when using a hydraulic motor with a pump volume of 160 cm<sup>3</sup>



## 550-79

### with injection unit 79

24	28	32
22,0	18,6	16,3
43,0	58,5	76,5
39	53	69
83	83	83
84,8 / 120,3 <sup>3</sup>	115,2 / 161,3 <sup>3</sup>	119,8 / 213,8 <sup>3</sup>
1810	1340	1030
95	95	95
48	48	48
180	180	180
240 <sup>1</sup> / 400 <sup>2</sup>	240 <sup>1</sup> / 400 <sup>2</sup>	240 <sup>1</sup> / 400 <sup>2</sup>
10-250 <sup>2</sup>	10-250 <sup>2</sup>	10-250 <sup>2</sup>
10-400 <sup>1</sup>	10-400 <sup>1</sup>	10-400 <sup>1</sup>
45,7	45,7	45,7
200 + 700 + 2 x 1250 + 2400 = 5800		
20	20	20

550	550	550
360 x 335	360 x 335	360 x 335
650	650	650
400	400	400
250	250	250
38	38	38
24,4	24,4	24,4
80 (130) (150)		
20,4 / 13,5 (20,4 / 13,5) (42,7 / 30)		

### optional with increased speeds

11 / 15 <sup>3</sup>	11 / 15 <sup>3</sup>	11 / 15 <sup>3</sup>
16,8 / 20,8 <sup>3</sup> / 400 V	16,8 / 20,8 <sup>3</sup> / 400 V	16,8 / 20,8 <sup>3</sup> / 400 V
180	180	180
200	200	200

3250 x 1105 x 2040 / 3,59

2250

2580

3450 x 1160 x 1920

3) with increased speeds

# BOY 55

## 550-205

### with injection unit 205 (standard)

28	32
22,7	20
73,9	96,5
71,1	92,3
171	171
58,2 / 89,7 <sup>1</sup>	76,9 / 116,3 <sup>1</sup>
2778	2127
120	120
66	66
210	210
$390^2 / 490^3$	$390^2 / 490^3$
$10 - 325^3 / 450^{1,3}$	
$10 - 410^2 / 560^{1,2}$	
29,7	29,7
$200 + 900 + 2 \times 2100 + 2400 = 7700$	
58	58

550	550
360 x 335	360 x 335
650	650
400	400
250	250
38	38
24,4	24,4
80 (130) (150)	
20,4 / 13,5	(20,4 / 13,5) (42,7 / 30)

### optional with increased speeds

11 / 15 <sup>1</sup>	11 / 15 <sup>1</sup>
18,7/22,7 <sup>1</sup> (400 V)	18,7/22,7 <sup>1</sup> (400 V)
180	180
200	200

3250 x 1105 x 2040 / 3,59

2250

2580

3450 x 1160 x 1920

- 1) with increased speeds  
 2) when using a hydraulic motor with a pump volume of 162 cm<sup>3</sup>



## 550-205

### with injection unit 205 (standard)

38	42
16,7	15
136,1	166,3
129,8	158,9
171	171
108,2 / 165,1 <sup>1</sup>	129,3 / 196,6 <sup>1</sup>
1508	1235
120	120
66	66
210	210
390 <sup>2</sup> / 490 <sup>3</sup>	390 <sup>2</sup> / 490 <sup>3</sup>

10 - 325<sup>3</sup> / 450<sup>1,3</sup>

10 - 410<sup>2</sup> / 560<sup>1,2</sup>

29,7	29,7
200 + 900 + 2 x 2100 + 2400 = 7700	
58	58

550	550
360 x 335	360 x 335
650	650
400	400
250	250
38	38
24,4	24,4

80 (130) (150)

20,4 / 13,5 (20,4 / 13,5) (42,7 / 30)

### optional with increased speeds

11 / 15 <sup>1</sup>	11 / 15 <sup>1</sup>
18,7/22,7 <sup>1</sup> (400 V)	18,7/22,7 <sup>1</sup> (400 V)
180	180
200	200

3250 x 1105 x 2040 / 3,59

2250

2580

3450 x 1160 x 1920

3) when using a hydraulic motor with a pump volume of 204 cm<sup>3</sup>

# BOY 55 VV

## 550-205<sup>5</sup>

with injection unit 205<sup>5</sup>(standard)

28	32
22,7	20
73,9	96,5
71,1	92,3
171	171
58,2 / 89,7 <sup>1</sup>	76,9 / 116,3 <sup>1</sup>
2778	2127
120	120
66	66
210	210
390 <sup>2</sup> / 490 <sup>3</sup>	390 <sup>2</sup> / 490 <sup>3</sup>

10 - 325<sup>3</sup>

10 - 410<sup>2</sup>

29,7	29,7
200 + 900 + 2 x 2100 + 2400 = 7700	
-	-

550	550
360 x 335	360 x 335
550	550
300	300
250	250
38	38
24,4	24,4
80	80
20,4 / 13,5	20,4 / 13,5

11 / 15 <sup>1</sup>	11 / 15 <sup>1</sup>
18,7/22,7 <sup>1</sup> (400 V)	18,7/22,7 <sup>1</sup> (400 V)
180	180
200	200

3000 x 1110 x 3190<sup>4</sup> (2960<sup>4,5</sup>) / 3,33

2520

2700

3100 x 1300 x 2450

- 1) with increased speeds  
 2) when using a hydraulic motor with a pump volume of 162 cm<sup>3</sup>

# 550-205<sup>5</sup>



with injection unit 205<sup>5</sup> (standard)

38	42
16,7	15
136,1	166,3
129,8	158,9
171	171
108,2 / 165,1 <sup>1</sup>	129,3 / 196,6 <sup>1</sup>
1508	1235
120	120
66	66
210	210
390 <sup>2</sup> / 490 <sup>3</sup>	390 <sup>2</sup> / 490 <sup>3</sup>

10 - 325<sup>3</sup>

10 - 410<sup>2</sup>

29,7	29,7
------	------

200 + 900 + 2 x 2100 + 2400 = 7700

-

-

550	550
360 x 335	360 x 335
550	550
300	300
250	250
38	38
24,4	24,4
80	80
20,4 / 13,5	20,4 / 13,5

11 / 15 <sup>1</sup>	11 / 15 <sup>1</sup>
----------------------	----------------------

18,7/22,7 <sup>1</sup> (400 V)	18,7/22,7 <sup>1</sup> (400 V)
--------------------------------	--------------------------------

180	180
-----	-----

200	200
-----	-----

11 / 15 <sup>1</sup>	11 / 15 <sup>1</sup>
----------------------	----------------------

18,7/22,7 <sup>1</sup> (400 V)	18,7/22,7 <sup>1</sup> (400 V)
--------------------------------	--------------------------------

180	180
-----	-----

200	200
-----	-----

3000 x 1110 x 3190<sup>4</sup> (2960<sup>4,5</sup>) / 3,33

2520

2700

3100 x 1300 x 2450

- 3) when using a hydraulic motor with a pump volume of 204 cm<sup>3</sup>  
 4) max. 3700 mm      5) also available with injection unit 79 (see page 15)

# BOY 90

## 900-205

with injection unit 205

28	32	38	42
22,7	20	16,7	15
73,9	96,5	136,1	166,3
71,1	92,3	129,8	158,9
171	171	171	171
89,7	116,3	165,1	196,6
2778	2127	1508	1235
120	120	120	120
66	66	66	66
210	210	210	210
$390^1 / 490^2$	$390^1 / 490^2$	$390^1 / 490^2$	$390^1 / 490^2$

10 - 350<sup>2</sup>

10 - 350<sup>1</sup>

29,7	29,7	29,7	29,7
$200 + 900 + 2 \times 2100 + 2400 = 7700$			
58	58	58	58

900	900	900	900
430 x 360	430 x 360	430 x 360	430 x 360
725	725	725	725
475	475	475	475
250	250	250	250
65	65	65	65
47,2	47,2	47,2	47,2
130 (150)			
20,4 / 13,5 (42,7 / 30)			

15	15	15	15
22,7 / 400 V	22,7 / 400 V	22,7 / 400 V	22,7 / 400 V
180	180	180	180
200	200	200	200

$3850 \times 1175 \times 2150 / 4,52$

3150

3530

$3980 \times 1280 \times 2000$

1) when using a hydraulic motor with a pump volume of 162 cm<sup>3</sup>

2) when using a hydraulic motor with a pump volume of 204 cm<sup>3</sup>



## 900-370

with injection unit 370 (standard)

36	42	48
23	20	17
157,8	214,7	280,5
142	193	252
239	239	239
125,8	169,8	218,1
2347	1724	1320
155	155	155
65	65	65
250	250	250
$700^3 / 735^4$	$700^3 / 735^4$	$700^3 / 735^4$
10-280 <sup>3</sup>	10-280 <sup>3</sup>	10-280 <sup>3</sup>
10-250 <sup>4</sup>	10-250 <sup>4</sup>	10-250 <sup>4</sup>
53	53	53
$250 + 750 + 2 \times 3100 + 4050 = 11250$		
58	58	58

900	900	900
430 x 360	430 x 360	430 x 360
725	725	725
475	475	475
250	250	250
65	65	65
47,2	47,2	47,2
130 (150)		
20,4 / 13,5 (42,7 / 30)		

15	15	15
26,25 / 400 V	26,25 / 400 V	26,25 / 400 V
180	180	180
200	200	200

3850 x 1175 x 2150 / 4,52

3150

3530

3980 x 1280 x 2000

3) when using a hydraulic motor with a pump volume of 300 cm<sup>3</sup>

4) when using a hydraulic motor with a pump volume of 348 cm<sup>3</sup>

# Equipment

## Injection unit

- Pivoting injection unit
- Preset screw speed values with ramping transition
- Cold start protection
- Number of injection speed steps constant / ramp-like
- Number of injection pressure steps constant / ramp-like
- Holding pressure, stroke dependent
- Holding pressure, stroke and time dependent
- Start of holding pressure, hydraulic pressure-dependent
- Start of holding pressure, cavity pressure-dependent
- Number of holding pressure values
- Production monitoring at start of holding pressure
- Closed loop control for the complete injection profile and back pressure
- Control for intrusion-injection
- PID microprocessor-controlled heating zones for cylinder + nozzle set and temp. display
- Thermocouple controlled nozzle zone
- Hydraulically actuated needle shut-off nozzle
- Slide-away for quick material change (BOY 35 VV / BOY 55 VV without hopper)
- Automatic material loader / feeder
- High wear-resistant plasticizing units
- Adjustable nozzle force
- Delayed nozzle retraction
- Servo-electric screw drive

## Clamping unit

- Reduced mould height by 50 mm
- Number of mould closing speed ranges
- Number of mould opening speed ranges
- Number of reopening attempts after mould closing
- Hydr. ejector with dig. adjustable pressure, speed, position + no. of strokes, intermediate stop position
- Hydraulic ejector without adjustable stroke
- Hydraulic ejector with adjustable stroke 80 mm
- Hydraulic ejector with adjustable stroke 130 mm
- Hydraulic ejector with adjustable stroke 150 mm and 42,7 kN force
- Hydraulic unscrewing device, one direction of rotation with intermediate stop
- Hydraulic unscrewing device, two directions of rotation with intermediate stop and counter
- Core pull control with 4/3 way directional control valve and freely selectable operational programmes
- Injection compression (coining) and breathing
- Hydraulic guard safety device
- Self adjusting mechanical drop bar safety system with electronic monitor
- Safety gate for handling devices
- Pneumatically operated safety gate
- Sorting chute
- Air ejection
- Mould lifting crane
- Parallel ejector (when using a twin pump)
- Integrated sprue picker

■ Standard

○ Alternative

□ Optional

■ Not available

BOY 12		BOY 22					BOY 35				BOY 55				BOY 90		
A	M	A	M	D	AV	MV	A	M	AV	MV	A	M	AV	MV	A	M	
-	-	-	-	-	-	-	-	-	-	-	■	■	-	-	■	■	
■	■	■	■	-	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
0/8	3/2	0/8	3/2	2/0	0/8	3/2	0/8	3/2	0/8	3/2	0/8	3/2	0/8	3/2	0/8	3/2	
0/2	2/1	0/2	2/1	2/0	0/2	2/1	0/2	2/1	0/2	2/1	0/2	2/1	0/2	2/1	0/2	2/1	
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
8	3	8	3	1	8	3	8	3	8	3	8	3	8	3	8	3	
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	-	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	
5	4	5	4	3	5	4	5	4	5	4	5	4	5	4	5	4	
■	■	■	■	○	■	■	■	■	■	■	■	■	■	■	■	■	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
-	-	○	○	○	■	■	■	■	■	■	■	■	■	■	■	■	
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	
○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	
○	-	○	-	-	○	-	○	-	○	-	○	-	○	-	○	-	
-	-	□	□	□	□	□	□	□	□	□	□	□	□	-	-	□	□
8	4	8	4	2	8	4	8	4	8	4	8	4	8	4	8	4	
8	3	8	3	2	8	3	8	3	8	3	8	3	8	3	8	3	
■	■	■	■	□	■	■	■	■	■	■	■	■	■	■	■	■	■
■	■	■	■	-	■	■	■	■	■	■	■	■	■	■	■	■	■
-	-	-	-	■	-	-	-	-	-	-	-	-	-	-	-	-	-
■	■	■	■	○	■	■	■	■	■	■	■	■	■	■	■	-	-
-	-	-	-	-	-	-	○	○	○	○	○	○	○	○	■	■	■
-	-	-	-	-	-	-	-	-	-	-	○	○	-	-	○	○	○
□	□	□	□	□	-	-	□	□	-	-	□	□	-	-	□	□	□
□	□	□	□	□	-	-	□	□	-	-	□	□	-	-	□	□	□
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
-	-	□	□	□	□	□	□	□	□	□	■	■	□	□	■	■	■
■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
□	□	□	□	□	■	■	□	□	■	■	□	□	■	■	□	□	□
○	○	○	○	○	-	-	○	○	-	-	■	■	-	-	■	■	■
-	-	-	-	-	■	■	-	-	■	■	-	-	■	■	-	-	-
○	○	○	○	-	-	-	○	○	-	-	○	○	-	-	○	○	○
□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□	□
-	-	-	-	-	-	-	-	-	-	-	□	□	-	-	□	□	□
-	-	-	-	-	-	-	-	-	-	-	○	-	-	-	○	-	-
□	□	□	□	□	-	-	□	□	-	-	-	-	-	-	-	-	-

# Equipment

## Electronics

- USB interface for access and data exchange
- Interface kit: Serial/Temperature device, USB/Printer and Ethernet/OPC
- 4 freely programmable inputs/outputs
- Floppy disc drive and interface RS 232 for printer / temperature device
- Piece counter / interval signal / Cycle counter in the D series
- Preselect cycle counter with auto shut-off
- Grounded socket outlet 230 V ~ / 10 A
- Grounded socket outlet 230 V ~ / 10 A, switched
- CEE socket outlet 400 V ~ / 16 A
- CEE socket outlet 400 V ~ / 16 A, switched
- Socket distributor 3 x 400 V ~ / 3 x 230 V ~
- Switch cabinet ventilation
- Ammeter for each heating zone
- Trip chute with control voltage (110 V ~ / 230 V ~) 10 pol. Harting
- Standardized interface for handling units (EUROMAP)
- Separate feeder (heating and motor current)
- Interface for tolerance monitoring, good / bad selection
- 7-day timer
- Additional temperature control
- Connection for thermocouples for mould temperature control (optional)
- Brush control
- Connector for safety switch to inhibit mould closing
- Trip chute balance flap with signal for machine recycling
- Integrated hot runner control, 8-fold
- Energy-optimized motor control with soft start
- Air conditioning unit for control cabinet
- Dipronic-format on screen (does not contain all additional functions of the Procan MD)

## Hydraulics

- Electronically controlled variable pump
- Oil preheating circuit automatic
- Oil temperature gauge / Controlled oil cooling / Oil level indicator
- Oil level and temperature monitoring
- Optical oil filter contamination indicator
- Water-cooled pump drive motor
- Proportional action valve for the clamping unit
- Proportional valve with stroke feedback and positioning action for clamp unit

## General

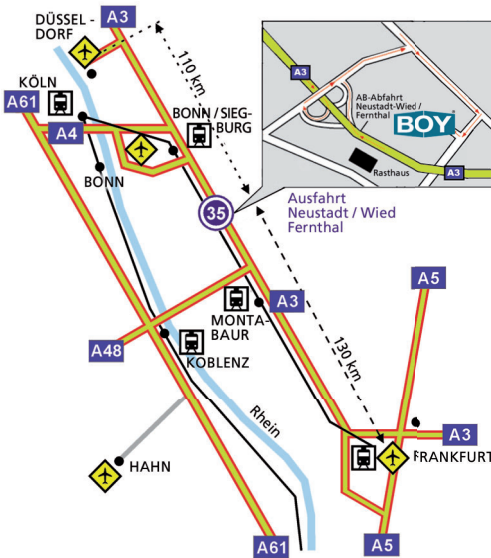
- Cooling water distributor with electric shut-off valve for injection mould and feet throat (except D)
- 6 / 8-zone water distributor
- Tool kit
- Spare parts package
- Oil filling
- Anti-vibration mounts

- Standard      ○ Alternatively      □ Optional      — Not available



# Ask for further information about our range!

Visit our plant in Neustadt-Ferndthal!  
Free injection trials can be held at any  
time in our modern Technology Centre.



Dr. Boy GmbH & Co. KG  
Neschener Str. 6  
53577 Neustadt-Ferndthal  
Germany  
Tel.: +49 / 2683 / 307-0  
Fax: +49 / 2683 / 32771  
Internet: [www.dr-boy.de](http://www.dr-boy.de)  
E-Mail: [info@dr-boy.de](mailto:info@dr-boy.de)

