

PORT ERIE PLASTICS - MACHINE SPECIFICATIONS

| MACH # | MAKE | MFG YEAR | CLAMP TONNAGE | INJECTION CAPACITY (OZ.) | DAYLIGHT | MOLD THICKNESS | DIST. BETWEEN TIE RODS (IN.) (HORIZ X VERT) | EJECTOR STROKE (INCHES) | K.O. PATTERN CODE (SEE BELOW) | CORE PULL |
|---------------|-------------|-----------------|----------------------|---------------------------------|--|---|--|--------------------------------|--------------------------------------|------------------|
| 2 | Cincinnati | 1990 | 300 TOG | 34 | MAX 48" | MIN 7.9" MAX 25.2" | 25.2 X 24.6 | 5 | 2-3 | YES |
| 3 | TMC | 1996 | 385 TOG | 50.44 | MAX 54.73" | MIN 11.8" MAX 29.53" | 27.95 X 27.95 | 5.51 | 1-2-3-4H | YES |
| 4 | Cincinnati | 1994 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 5 | TMC | 1996 | 385 TOG | 50.44 | MAX 54.73" | MIN 11.8" MAX 29.53" | 27.95 X 27.95 | 5.51 | 1-2-3-4H | YES |
| 6 | Cincinnati | 1990 | 500 HYD | 68 | 54.25" 47.7" W/SPCR | MIN 15" 7.5" W/SPCR | 34.3 X 34.3 | 5.8 | 2-3-4 | YES |
| 7 | Cincinnati | 1984 | 500 HYD | 48 | MAX 66" 58" W/8" SPCR 48" W 8" + 10" SPCR | MIN 28" W/O SPCRS 20" W/8" SPCR 10" W/8"+10" SPCR | 32.5 X 32.5 | 6 | 2-3-4-5 | YES |
| 8 | Cincinnati | 1984 | 250 HYD | 20 | MAX 35" | MIN 6" | 27 X 27 | 4.5 | 1-2-3-4H | YES |
| 9 | Cincinnati | 1995 | 300 HYD | 29 | | MIN 2.20" | 7.17 X 27.17 | 5.8 | 1-2-3 | YES |
| 10 | Cincinnati | 1988 | 700 HYD | 110 | MAX 76" 66" W/10" SPCR 58" W/10+8" SPCR | MIN 24" 14" W/10" SPCR 6" W/10+8" SPCR | 45 X 34 | 6 | 1-2-3-4-5-6H | YES |
| 11 | TMC | 1996 | 550 TOG | 91.96 | MAX 67.71" | MIN 13.78" MAX 35.43" | 33.46 X 33.46 | 7.87 | 1-2-3-4H | YES |
| 12 | TMC | 1996 | 550 TOG | 91.96 | MAX 67.71" | MIN 13.78" MAX 35.43" | 33.46 X 33.46 | 7.87 | 1-2-3-4H | YES |
| 13 | Cincinnati | 1990 | 300 TOG | 34 | MAX 48" | MIN 7.9" MAX 25.2" | 25.2 X 24.6 | 5 | 2-3 | YES |
| 14 | Cincinnati | 1997 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | YES |
| 15 | Engel | 1996 | 450 TOG | 57.1 | MAX 61.5" | MIN 11.81" MAX 33.94" | 33.07 X 33.07 | 9.45 | 1-2-3-4H | YES |

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|---------------|------------------|-----------------|----------------------|---------------------------------|-----------------------------|---------------------------|--|--------------------------------|--------------------------------------|------------------|
| 16 | Cincinnati | 1993 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 17 | Engel | 1996 | 450 TOG | 57.1 | MAX 61.5" | MIN 11.81" MAX 33.94" | 33.07 X 33.07 | 9.45 | 1-2-3-4H | YES |
| 18 | Cincinnati | 1992 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 19 | Cincinnati | 1986 | 700 HYD | 70 | MAX 60" | MIN 18" | 36.5 X 36.5 | 6 | 1-2-3-4-5 | YES |
| 20 | Cincinnati | 1994 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 22 | Cincinnati | 1994 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 24 | Cincinnati | 1994 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 27 | TMC | 1997 | 99 TOG | 6.1 | MAX 25.98" | MIN 5.91" MAX 14.17" | 15.75 X 15.75 | 3.15 | 1-2 | YES |
| 28 | TMC | 1997 | 99 TOG | 6.1 | MAX 25.98" | MIN 5.91" MAX 14.17" | 15.75 X 15.75 | 3.15 | 1-2 | YES |
| 29 T | TMC 95-01-003 | 1995 | 66 TOG | 3.1 | MAX 23.23" | MAX 12.60" MIN 3.93" | 12.6" X 12.6" | 3.15 | 1-2 | YES |
| 29E | Engel | 1993 | | 3.2 | MAX 20.47 MIN 7.48 | MIN 7.48 | TIEBARLESS | 3.94 | 1-2 | YES |
| 29C | Cincinnati | 1991 | 55 TOG | 6.04 | MAX 24.8 | MIN 5.91 MAX 13.78 | 12.8 X 12.8 | 3.94 | 1-2 | YES |
| 30 | Engel | 1996 | 150 TOG | 15.4 | MAX 37.01" | MIN 5.91" MAX 20.47" | 19.54 X 16.54 | 5.12 | 1-2-3 | YES |
| 31 | Engel | 1996 | 150 TOG | 15.4 | MAX 37.01" | MIN 5.91" MAX 20.47" | 19.65 X 16.54 | 5.12 | 1-2-3 | YES |
| 32 | Nissei | 1991 | 233 HYD | 17.8 | MAX 41" | MIN 10" | 22.4 X 22.4 | 4.7 | 1-2-3 | YES |
| 33 | Nissei | 1992 | 132 HYD | 7.3 | MAX 27.559" 22.4" W/SPCR | MIN 11.8" 6.69" W/SPCR | 16.1 X 16.1 | 3.35 | 1-2 | YES |
| 34 | Nissei | 1992 | 132 HYD | 7.3 | MAX 27.559" 22.4" W/SPCR | MIN 11.8" 6.69" W/SPCR | 16.1 X 16.1 | 3.35 | 1-2 | YES |
| 35 | Cincinnati | 1990 | 165 TOG | 16 | MAX 30.7" | MIN 5.9" MAX 15" | 17.9 X 16.7 | 2.9 | 1-2-3H | YES |
| 36 | Cincinnati | 1988 | 250 HYD | 29 | MAX 39.19" | MIN 9.65" | 22.05 X 22.05 | 5.04 | 1-2-3 | YES |

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|---------------|-----------------------|-----------------|----------------------|---------------------------------|---------------------------|---------------------------|--|--------------------------------|--------------------------------------|------------------|
| 37 | Cincinnati | 1988 | 250 HYD | 29 | MAX 39.19" | MIN 9.65" | 22.05 X 22.05 | 5.04 | 1-2-3 | YES |
| 38 | Cincinnati | 2001 | 135 HYD | 20 | MAX 33.46" | MIN 9.84" | 31.50 X 27.56 | 5.12 | 1-2-3H | YES |
| 39 | Cincinnati | 2001 | 135 HYD | 20 | MAX 33.46" | MIN 9.84" | 31.50 X 27.56 | 5.12 | 1-2-3H | YES |
| 40 | Cincinnati | 2001 | 135 HYD | 20 | MAX 33.46" | MIN 9.84" | 31.50 X 27.56 | 5.12 | 1-2-3H | YES |
| 41 | Cincinnati | 2001 | 190 HYD | 20 | MAX 37.40" | MIN 9.84" | 35.43 X 29.53 | 5.91 | 1-2-3 | YES |
| 42 | Cincinnati | 2001 | 190 HYD | 20 | MAX 37.40" | MIN 9.84" | 35.43 X 29.53 | 5.91 | 1-2-3 | YES |
| 43 | Cincinnati (electric) | 2001 | 220 TOG | 21 | MAX 39.37" | MIN 5.9" MAX 19.7" | 23.62 X 23.62 | 5.9 | 1-2-3 | NO |
| 44 | Cincinnati (electric) | 2001 | 220 TOG | 21 | MAX 39.37" | MIN 5.9" MAX 19.7" | 23.62 X 23.62 | 5.9 | 1-2-3 | NO |
| 45 | Cincinnati | 2001 | 190 HYD | 11 | MAX 37.40" | MIN 9.84" | 35.43 X 29.53 | 5.91 | 1-2-3 | YES |
| 46 | Cincinnati | 2001 | 190 HYD | 20 | MAX 37.40" | MIN 9.84" | 35.43 X 29.53 | 5.91 | 1-2-3 | YES |
| 47 | Cincinnati (electric) | 2001 | 220 TOG | 21 | MAX 39.37" | MIN 5.9" MAX 19.7" | 23.62 X 23.62 | 5.9 | 1-2-3 | NO |
| 48 | Cincinnati (electric) | 2001 | 220 TOG | 21 | MAX 39.37" | MIN 5.9" MAX 19.7" | 23.62 X 23.62 | 5.9 | 1-2-3 | NO |
| 50 | Cincinnati | 1990 | 850 HYD | 140 | MAX 75.6" 63.8" W/SPCR | MIN 23.6" 11.8" W/SPCR | 45.3 X 37.4 | 7.9 | 2-3-4-5-7H | YES |
| 51 | Cincinnati | 1990 | 725 HYD | 140 | MAX 70.1" 61" W/SPCR | MIN 18.1" 9.1" W/SPCR | 37.4 X 37.4 | 7.9 | 2-3-4-5 | YES |
| 52 | Cincinnati | 1990 | 725 HYD | 140 | MAX 70.1" 61" W/SPCR | MIN 18.1" 9.1" W/SPCR | 37.4 X 37.4 | 7.9 | 2-3-4-5 | YES |
| 53 | Cincinnati | 1996 | 725 HYD | 76 | MAX 70.1" | MIN 18.1" 9.1" W/SPCR | 37.4 X 37.4 | 7.87 | 2-3-4-5 | YES |

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|---------------|-------------|-----------------|----------------------|---------------------------------|---|--|--|--------------------------------|--------------------------------------|------------------|
| 54 | Cincinnati | 1990 | 300 TOG | 34 | MAX 48" | MIN 7.9" MAX 25.2" | 25.2 X 24.6 | 5 | 2-3 | YES |
| 55 | Cincinnati | 1990 | 300 TOG | 34 | MAX 48" | MIN 7.9" MAX 25.2" | 25.2 X 24.6 | 5 | 2-3 | YES |
| 56 | Cincinnati | 1997 | 440 TOG | 54 | MAX 53.15" | MIN 9.84" MAX 27.56" | 28.9 X 28.9 | 5.83 | 1-2-3-4H | NO |
| 57 | Cincinnati | 1992 | 600 HYD | 95 | MAX 66" W/SPCR 55.4" | MIN 21.1" 10.6" W/SPCR | 34.3 X 34.3 | 7.9 | 1-2-3-4 | YES |
| 58 | Cincinnati | 1992 | 600 HYD | 95 | MAX 66" 55.4" W/SPCR | MIN 21.1" 10.6" W/SPCR | 34.3 X 34.3 | 7.9 | 1-2-3-4 | YES |
| 59 | Cincinnati | 1986 | 1000 HYD | 165 | MAX Mold Ht +46" | MIN 10" MAX 46" | 60 X 40 | 8 | 1-4-5-7-8H-9H | YES |
| 60 | Cincinnati | 1992 | 1500 HYD | 362 | MAX 124.02" W/O SPCR 113" W/11" SPCR 100.74" W/21" SPCR 77.56" W/ALL SPCRS | MIN 63.625" W/O SPCR 40.375" W/23.25" SPCR 29.375" W/23.25+11" SPCR 18.375" W/ALL SPCRS | 51.97 X 51.97 | 10.24 | 1-4-5-7-8 | YES |
| 61 | Cincinnati | 1999 | 850 HYD | 140 | MAX 75.6" 63.8" W/SPCR | MIN 23.6" 11.8" W/SPCR | 45.3 X 37.4 | 7.9 | 2-3-4-5-7H | YES |
| 62 | Cincinnati | 1999 | 850 HYD | 140 | MAX 75.6" 63.8" W/SPCR | MIN 23.6" 11.8" W/SPCR | 45.3 X 37.4 | 7.9 | 2-3-4-5-7H | YES |
| 63 | Nissei | 2000 | 309 HYD | 29.9 | MAX 45.27" | MIN 12.59" | 25.98 X 25.98 | 5.375 | 1-2-3 | YES |
| 64 | Nissei | 2000 | 239 HYD | 21.4 | MAX 41.31" | MIN 11.41" | 23.20 X 23.20 | 5.0 | 1-2-3 | YES |
| 201 | Cincinnati | 2000 | 55 TOG | 1.08 | MAX 24.8 | MAX 13.78" MIN 5.91" | 12.08 X 12.20 | 3.94 | 1-2 | No |
| 202 | Cincinnati | 2000 | 55 TOG | 1.08 | MAX 24.8 | MAX 13.78" MIN 5.91" | 12.08 X 12.20 | 3.94 | 1-2 | No |
| 203 | Cincinnati | 1994 | 110 TOG | 10 | | MAX 15.70" MIN 5.90" | 16.1 X 14.2 | 2.18 | 1-2 | YES |
| 204 | Cincinnati | 1994 | 110 TOG | 10 | | MAX 15.70" MIN 5.90" | 16.1 X 14.2 | 2.18 | 1-2 | YES |

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|---------------|-------------|-----------------|----------------------|---------------------------------|-----------------|-------------------------|--|--------------------------------|--------------------------------------|------------------|
| 205 | Cincinnati | 1995 | 110 TOG | 10 | | MAX 15.70" MIN 5.90" | 16.1 X 14.2 | 2.18 | 1-2 | YES |
| 206 | Sumitomo | 1990 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 207 | Sumitomo | 1991 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 208 | Sumitomo | 1990 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 209 | Sumitomo | 1991 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 210 | Sumitomo | 1991 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 211 | Sumitomo | 1990 | 180 TOG | 8.3 | MAX 36.6" | MAX 19.68" MIN 7.87" | 20.08 X 20.08 | 4.72 | 1-2 | No |
| 212 | Cincinnati | 1993 | 165 TOG | 13 | | MAX 15.00" MIN 5.90" | 17.9 X 16.7 | 2.9 | 1-2-3H | YES |
| 213 | Cincinnati | 1993 | 165 TOG | 16 | | MAX 15.00" MIN 5.90" | 17.9 X 16.7 | 2.9 | 1-2-3H | YES |
| 214 | Cincinnati | 1993 | 220 TOG | 17 | | MAX 19.00" MIN 6.00" | 21.3 X 19.3 | 3.9 | | YES |
| 215 | Cincinnati | 1991 | 250 HYD | 13 | | MIN 9.65" | 2.05 X 22.05 | 5 | 1-2-3 | YES |
| 216 | Cincinnati | 1993 | 250 HYD | 13 | | MIN 9.65" | 2.05 X 22.05 | 5 | 1-2-3 | YES |
| 217 | Cincinnati | 1995 | 300 HYD | 29 | | MIN 2.20" | 7.17 X 27.17 | 5.8 | 1-2-3 | YES |

HOW TO READ THE K.O. PATTERN CODE

EXAMPLE : 1-2 = CENTER AND 3.5" HORIZONTAL AND VERTICAL

* A LETTER AFTER THE NUMBER INDICATES
THE PATTERN IS ONLY IN ONE DIRECTION
H = HORIZONTAL V = VERTICAL

K.O PATTERNS

- 1 - CENTER
- 2 - 3.5"
- 3 - 2" X 8"
- 4 - 3" X 14"
- 5 - 5" X 20"
- 6 - 5" X 26"

CINCINNATI MILACRON CORE SEQUENCES

CORE SET SELECTION

- A1: SET CORE BEFORE MOLD STARTS CLOSING
- A2: SET CORE DURING MOLD CLOSING
- A3: SET CORE AFTER MOLD CLOSED, BUT BEFORE INJECTION
- A4: START CLOSING MOLD, STOP, SET CORE AND COMPLETE CLOSING MOLD

CORE PULL SELECTION

- B1: PULL CORE AFTER MOLD IS OPENED
- B2: PULL CORE DURING MOLD OPENING
- B3: PULL CORE AFTER COOLING, BUT BEFORE MOLD STARTS OPENING
- B4: START OPENING MOLD, STOP, PULL CORE AND COMPLETE OPENING MOLD

TMC CORE SEQUENCES

CORE WILL SET AT "IN" POSITION SETPOINT
CORE WILL PULL AT "OUT" POSITION SETPOINT

CORE WILL SET AT "IN" POSITION SETPOINT
CORE WILL PULL AT "OUT" POSITION SETPOINT

WHEN BOTH CORE PULL 1 & 2 ARE USED, THE SEQUENCE IS AS
FOLLOWS: CORE 1 IN - CORE 2 IN - CORE 2 OUT - CORE 1 OUT
(SEE THE OPERATION MANUAL)

ENGEL CORE SEQUENCES

CORE WILL SET AT "MOLD POS. FOR CORE IN"
CORE WILL SET AT "MOLD POS. FOR CORE OUT"

CORE WILL SET AT "MOLD POS. FOR CORE IN"
CORE WILL SET AT "MOLD POS. FOR CORE OUT"

WHEN BOTH CORE PULL 1 & 2 ARE USED, A VALUE MUST BE
ENTERED IN "PRIORITY FOR MOVING IN" TO SET THE SEQUENCE
(SEE THE OPERATION MANUAL)

HPM CORE SEQUENCES

SEQUENCE "A"
CORE WILL SET - THEN CLAMP CLOSES
CLAMP OPENS - THEN CORE PULLS

SEQUENCE "B"
CLAMP WILL CLOSE - THEN CORE SETS
CORE WILL PULL - THEN CLAMP OPENS

Updated
2005-01-04
MJK