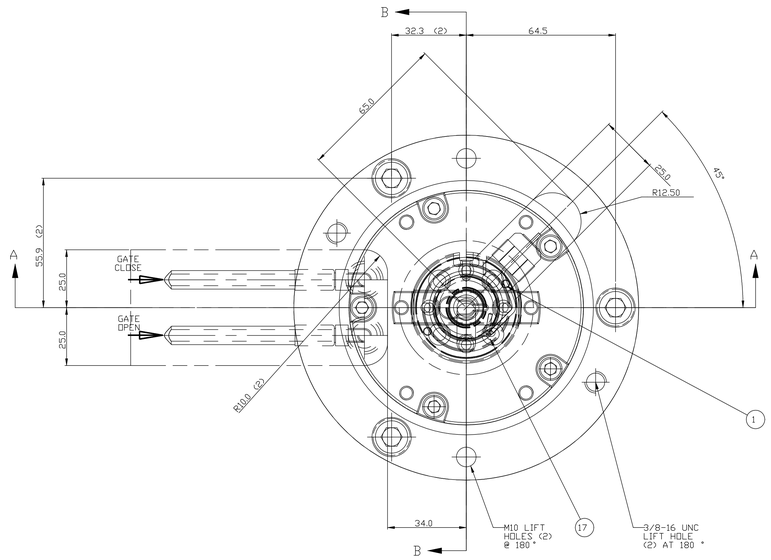
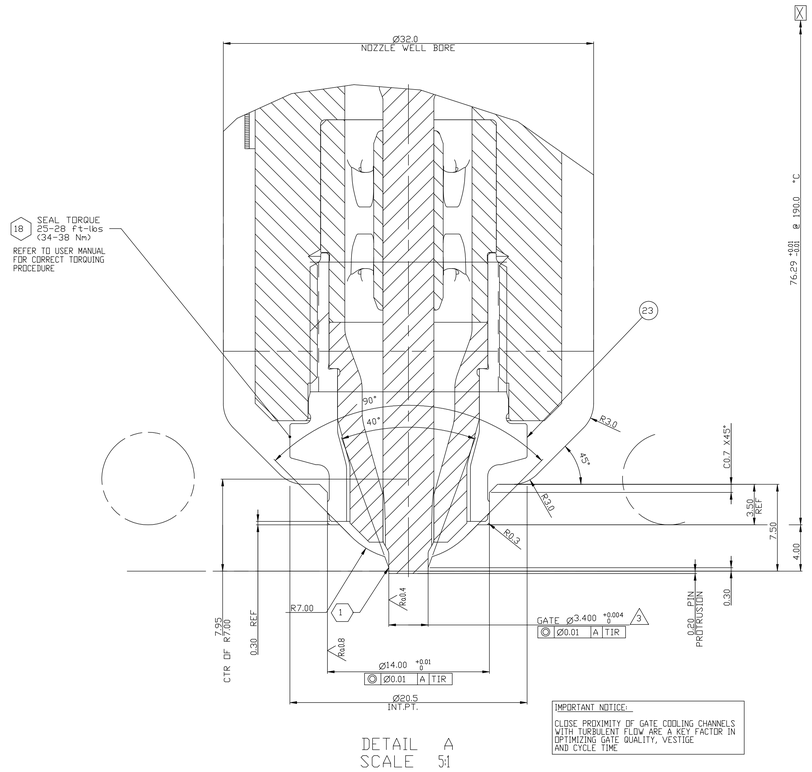




IMPORTANT NOTICE:

CLOSE PROXIMITY OF GATE COOLING CHANNELS WITH TURBULENT FLOW ARE A KEY FACTOR IN OPTIMIZING GATE QUALITY, VESTIGE AND CYCLE TIME.

DETAIL A
SCALE 5:1

NOTES:

RHEOLOGY:

MATERIAL		PART	
TYPE.....	ABS	EST. CYCLE TIME...	N/A
GRADE.....	ABS	WEIGHT.....	180.00g
SUPPLIER.....	N/A		
PROCESS.TEMP..	250 °C	MOLD	
MOLD TEMP.....	60 °C	NUMBER OF CAVITIES...	1
M.F.I.....	N/A	COLD SUB-RUNNERS.....	NO

PLASTIC PART:

DESCRIPTION/FUNCTION... CARRYING TRAY
PRECISION PART..... -
COMMODITY PART.....
DISPOSABLE PART.....

THERMODYNAMIC:

- ALL THERMOCOUPLES MUST TOUCH BOTTOM OF THE BORE.
- THE MANIFOLD WATT DENSITY IS N/A W/cm³, @ 220V AC.
- MANIFOLD HEAT EXPANSION IS CALCULATED FOR A PROCESSING TEMPERATURE OF 250.00 °C.
- RECOMMENDED MOLD TEMPERATURE IS 60 °C.
- EACH HEAT SOURCE SHOULD HAVE ITS OWN CLOSED LOOP TEMPERATURE CONTROL IN ORDER TO ACHIEVE ACCURATE CONTROL. IF THERE ARE NOT ENOUGH CONTROL ZONES, THEN HEAT SOURCES WHICH HAVE THE SAME WATTAGE AND AFFECT THE SAME ENVIRONMENT, MAY BE GROUPED TOGETHER.
- CONTROLLABLE TURBULENT COOLING MUST BE CLOSE TO GATE AREA.

ELECTRICAL:

- REFER TO DRAWING FOR NOZZLE VOLTAGE AND WATTAGE.
- THE THERMOCOUPLES ARE TYPE 'J', UNGROUNDED AND ARE TO ASA STANDARDS (+WHITE,RED-).
- THE BUYER HAS THE RESPONSIBILITY OF HAVING THE SYSTEM WIRED BY A QUALIFIED ELECTRICIAN, ACCORDING TO LOCAL REGULATIONS.
- RECOMMENDED OPERATING VOLTAGE RANGE: 220V +/- 10%
- WATTAGES SHOWN BASED ON 220V
- PLEASE USE THE FOLLOWING OHM'S LAW FOR WATTAGE AND VOLTAGE CONVERSIONS:

  $R = V^2 / P$ & $P1 = V1^2 / R$

  R = OHMS (220V) P = WATTS (220V) P1 = WATTS (×××V)
  V = VOLTS (220V) V1 = VOLTS (×××V)

HYDRAULIC: (IF APPLICABLE)

- INPUT LINE PRESSURE MUST BE 30-50 BAR.
- RELIEF VALVES MUST BE SET AT MINIMUM OF 3 BAR LESS THAN INPUT LINE PRESSURE.
- THE SAME GRADE OF OIL THAT IS USED IN THE INJECTION MOLDING MACHINE MUST BE USED TO ACTIVATE THE HYDRAULIC VALVE GATING.
- TO AVOID DAMAGING THE SEALS IN THE MOLD AND HYDRAULIC UNIT, COOLING MUST BE LEFT RUNNING UNTIL THE HOT RUNNER SYSTEM HAS COOLED TO BELOW 80°C.

PNEUMATIC: (IF APPLICABLE)

- LINE PRESSURE MUST BE 5.0 TO 7.0 BAR.

MECHANICAL:

- MAXIMUM MELT PRESSURE IS 2000 BAR.
- INSTALL AND TORQUE THE SOCKET HEAD CAP SCREWS IN INCREMENTS AND UNIFORMLY TO THE FOLLOWING SPECIFICATIONS(ft-lbs (Nm))

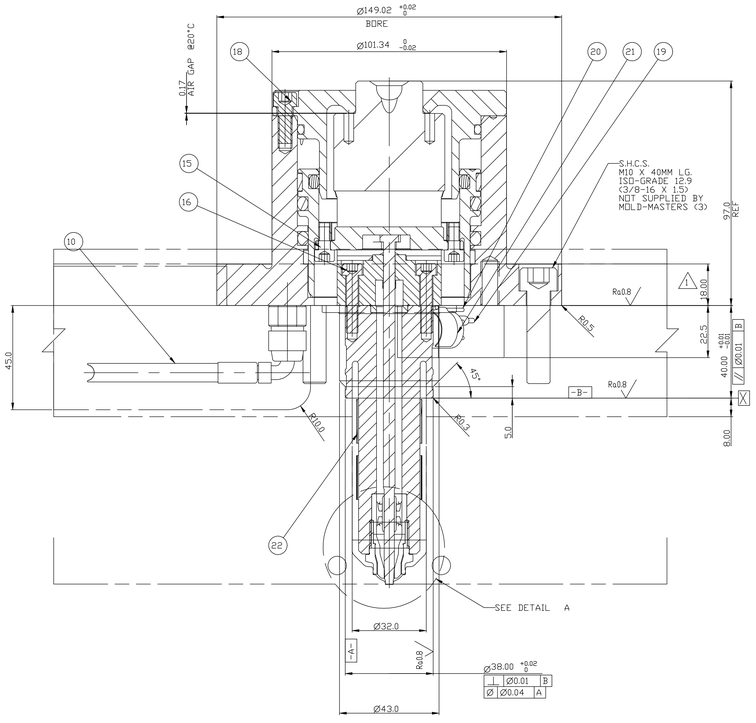
SYSTEM ASSEMBLY SCREWS				PLATE ASSEMBLY SCREWS			
M5 = 5 (7)	#10-32 = 5 (7)			M5 = 7 (10)	#10-32 = 6 (9)		
M6 = 10 (14)	1/4-20 = 10 (14)			M6 = 12 (16)	1/4-20 = 16 (22)		
M8 = 15 (20)	5/16-18 = 15 (20)			M8 = 29 (39)	5/16-18 = 35 (48)		
M10 = 30 (40)	3/8-16 = 30 (40)			M10 = 57 (77)	3/8-16 = 63 (85)		
M12 = 45 (60)	1/2-13 = 45 (60)			M12 = 100 (135)	1/2-13 = 154 (209)		
M16 = 107 (145)	5/8-11 = 107 (145)			M16 = 243 (330)	5/8-11 = 283 (384)		
M20 = 219 (285)	3/4-10 = 210 (285)			M20 = 479 (650)	3/4-10 = 500 (678)		

- QUALITY AND LENGTH OF SCREWS MUST BE AS SPECIFIED.
- TOLERANCES: UNLESS OTHERWISE NOTED:

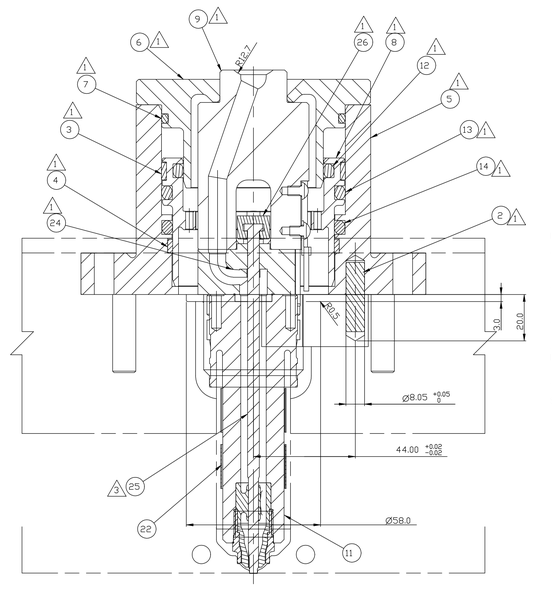
-1 DECIMAL PLACE	±0.10 / ±.004"	32
-2 DECIMAL PLACE	±0.05 / ±.002"	▽▽▽ = 0.8
-3 DECIMAL PLACE	±0.01 / ±.0004"	16
-ANGULAR	±0.25°	▽▽▽ = 0.4

- IN THE APPLICATION OF HOT RUNNER SYSTEMS, THE MOLD PLATE STEEL MUST HAVE A MINIMUM STRENGTH OF 1000-1200 N/mm ².
- FOLLOW THE MOLD-MASTERS LIMITED SUPPLIED GUIDELINES FOR HOT RUNNER MANIFOLD POCKET SHAPE TO MAINTAIN THE HIGHEST LEVEL OF RIGIDITY IN THE HOT HALF. THE MOLD AND HOT RUNNER SYSTEM ARE SUBJECTED TO HIGH DYNAMIC LOADS. THE CYCLICAL LOADING WILL BE PARTIALLY ABSORBED BY THE HOT RUNNER SYSTEM. THEREFORE, A REVIEW OF THE MOLD'S INTEGRITY, BY THE MOLDMAKER, IS RECOMMENDED.
- THE PRESSURE OF THE MACHINE NOZZLE, THAT IS THE INJECTION UNIT CARRIAGE, CAN SUBJECT THE HOT RUNNER SYSTEM TO CONSIDERABLE LOADS. THE MACHINE NOZZLE SHOULD REMAIN IN CONTACT WITH THE HOT RUNNER INLET ONLY WITH THE PRESSURE NEEDED FOR SEALING. (CALCULATED BY: INLET DIAMETER × MAX. INJECTION PRESSURE × 1.5 SAFETY FACTOR)

GATE AND LAND TOLERANCES ARE GENERALLY VERY TIGHT. THE ADHERENCE OF THESE TIGHTLY DIMENSIONED GATE AREA TOLERANCES SHOULD BE INTERPRETED AS STRICT UNIFORMITY OF ALL RELEVANT DIMENSIONS. FOR INSTANCE, IT IS NOT SO IMPORTANT THAT THE GATE DIMENSION IS ADHERED TO, BUT THAT ALL GATES ARE THE SAME, UNIFORM AMONG EACH OTHER WITHOUT EXCEPTION OF ANY ONE CAVITY GATE.



SECTION A-A



SECTION B-B

NOTE:

- MAXIMUM OPERATING TEMPERATURE 320°C (PROCESSING) 80°C (MOLD)
- SUPPLIED STROKE: 10.0mm 10.0mm MIN. STROKE REQUIRED ON VALVE GATE ACTUATOR
- THE MINIMUM RECOMMENDED HARDNESS ON NOZZLE WELL AREA IS HRC54.
- DO NOT NITRIDE OR CHROME PLATE, OR HAVE ANY SHARP CORNERS IN THE NOZZLE WELL AREA
- 1 JIG GROUND SURFACE

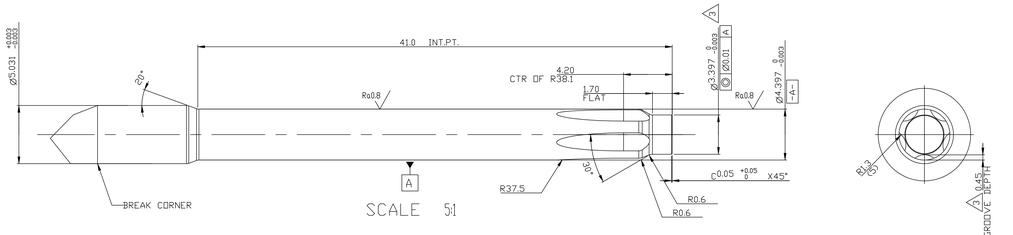
SPARE PART O-RING KIT: DRIA01KIT

ITEM	QTY	COMPONENT	DESCRIPTION
1	2	DPM3X8	DOWEL PIN 3 DIA. X 8mm LG.
1	2	DPM8X30	DOWEL PIN OD=8.0MM X 30.0MM LG.
1	3	GUIDERING03	GUIDE RING FOR IA01 OD=79.4 ID=75.0x7.6
1	4	GUIDERING04	GUIDE RING FOR IA01 OD=74.0 ID=69.8x6.0
1	5	HYCYLB12-1	IABD01 OUTER CYL. HOUSING (INCH)
1	6	HYCYLT11	CYLINDER TOP FOR INLINE ACTUATOR
1	7	HYORG233	O-RING 233-19459 VITON 90 DUROMETER
1	8	HYPISB45	PISTON FOR INLINE ACTUATOR
1	9	IABD01.500	INLINE ACTUATOR 01 BODY R0.500"
	10	IACONHOSE-24	INLINE ACTUATOR 24" CON. HOSE w/FITTINGS
	11	NZMSDB1A06B-ER	MSD B1 BODY NOZL w/C'BORE 11 RUNR L=68
1	12	PS0005	IA01 Ø60.3mm I.D. PTFE PISTON SEAL ASS'Y
1	13	PS0006	IA01 Ø79.4mm O.D. PTFE PISTON SEAL ASS'Y
1	14	PS0007	IA01 Ø69.8mm I.D. PTFE PISTON SEAL ASS'Y
	15	SHCSM5X10	SOCKET HEAD CAP SCREW M5 X 10.0MM LG.
	16	SHCSM5X25	SOCKET HEAD CAP SCREW M5 X 25.0MM LG.
	17	SHCSM5X70	SOCKET HEAD CAP SCREW M5 X 70.0MM LG.
	18	SHCSM6X16	SOCKET HEAD CAP SCREW M6 X 16.0MM LG.
	19	TCD1.0X150-1A	UNGRND T/C 1.0 L=150 +2in EXT (TS)
	20	TCD1.5X250-1A	UNGRND T/C 1.5 L=250 +2in EXT (TS)
	21	TCRC21	TERMINAL T/C RETAINING CLIP
	22	TCRC23	MSD NOZZLE T/C RETAINING CLIP
	23	TSM248A1	MSD A/V MX (TSM248+TSLM151+VPG042)
1	24	VB0099	VALVE BUSHING FOR INLINE ACTUATOR
3	25	VP00SPAV	VALVE PIN SPECIAL FOR ACCU VALVE
1	26	VPHOLDER05	VL-VPIN HOLDER INLINE ACTUATOR (5mm PIN)
3	900	VP00SPAV	VALVE PIN SPECIAL FOR ACCU VALVE
6	901	TSM248A1	MSD A/V MX (TSM248+TSLM151+VPG042)

REV.	ECR	REVISION	DRN	CH'D	APP'D	DATE
1	6267643	ACTUATOR PACKAGE CHANGED TO IA01 FROM IA05. RESPECTIVE ALL COMPONENTS ARE CHANGED TO CURRENT PACKAGES. 1.HYCYLB12-1 WAS HYCYLB29-1 2.HYCYLT11 WAS HYCYLT23-1 3.HYPISB45 WAS HYPISB64 4.IABD01.500 WAS IABD05 5.EO2TP.500 REMOVED 6.VPHOLDER05 WAS VPHOLDER24 7.V10020 REMOVED 8.WASHER43 REMOVED 9.JP1/8-27X.25 REMOVED 10.VP00SPAV WAS VPSNSPAV 11.VB0099 ADDED ALL OTHER ORINGS AND SCREW CHANGESD AS PER NEW PACKAGE.	PAN	RDB	DAE	2017-12-20
2	6269955	SPARE TSM248A1 -1QTY ADDED	PAN	RDB	DAE	2018-01-09
3	6275536	1.GATE Ø3.4 WAS Ø1.4 2.VALVE PIN TIP Ø3.397 WAS Ø1.397 3.GROOVE DEPTH 0.45mm WAS 0.75mm	ANN	RDB	DAE	2018-03-06

WATTAGE CHART @ 220V	
NZMSDB1A06B-ER	450W
IABD01.500	450W

ITEM NO.	SPH. RAD. "R"
IABD01BL	0.00
IABD01.500	12.7 (1/2")
IABD01.750	19.05 (3/4")
IABD0115.5	15.5
IABD0140.0	40.0



SCALE 5:1

CUSTOMER : PLASTEK GROUP	END USER : PLASTEK GROUP
PART DESCRIPTION / FUNCTION : CARRYING TRAY	
PART : N/A	

Mold-Masters performance delivered
MOLD-MASTERS CANADA
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GEORGETOWN ONTARIO L7G 4X5
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FAX: (905) 873-2818

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	DATE	BY
DR'N.	2017-12-14	PAN
CH'D.	2017-12-14	
APP'D.	2017-12-14	
SCALE :	5:1 1:1	THIRD ANGLE PROJECTION

TITLE : SNHR

JOB NO. : 5339019-10

DWG NO. : 5339019EGA11

SHEET 1 OF 1