

HyCAP Machine Specifications V2.1

Product Matrix

	RS55	RS65	RS80	RS95
H225	•	•	•	
H300		•	•	•
H400			•	•
H500			•	•

	Standard	Option
Clamp Features		
Hydro-mechanical 3 platen clamp	✓	
Moving platen linear guide bearings for clean molding environment	✓	
Wide tie bar spacing	✓	
Multi step clamp opening and closing speed profile	✓	
Mold break force up to 10% of clamp tonnage	✓	
Closed loop mold protection pressure control	✓	
Closed loop clamp force control	✓	
Euromap, SPI or JIS mold mounting pattern	✓	
Regenerative mold stroke hydraulics for improved energy efficiency	✓	
Hydraulic ejector with 3 zones of ejector speed and force control from operator interface	✓	
Mechanical clamp movement safety device (safety drop bar). Note: mandatory in some locations		✓
Mold cooling circuit with manifolds, flow sensor and automatic shutoff	✓	
Two air functions with pressure and flow regulator on the moving platen	✓	
Air reservoir		✓
Pneumatic valve gate (sequential control for multiple circuits)		✓
Programmable hydraulic functions with pressure limiting and flow control from operator interface		✓
General Machine Features		
37 month parts warranty	✓	
37 month leak free hydraulics warranty (parts and labor)	✓	
Electric extruder drive	✓	
Simultaneous operation of clamp, ejector, cores and plasticizing functions	✓	
Machine built to CE or ASME/UL/OHSA/NFPA safety standards	✓	
Special color		✓
Injection Features		
Robust In-line injection unit design, ideal for high speed injection	✓	
High speed accumulator assisted injection	✓	
High output speed screw drives	✓	
Hydraulic rotary shut-off nozzle	✓	
Barrel support	✓	
Injection swing for ease of screw and barrel access	✓	
High wear bi-metallic lined barrel (AC330 or eq.) and wear resistant screw tip overlay (Colmonoy 83 or eq.)	✓	
Mineral insulated heater bands	✓	
Ball check valve	✓	
Ring check valve		✓
Automatic carriage sequence controls for sprue break and stack molds	✓	
Carriage forward before, during or after clamp up	✓	
Screen adjustable proportional carriage control	✓	
Screw pullback before and/or after injection	✓	
Adjustable screw pullback speed from the operator interface	✓	
Mixer/Blender interface with power supply, air supply and auto purge logic	✓	
Cold screw start protection	✓	
Purge guard with safety interlocked access	✓	
Water cooled feedthroat	✓	
Selection of resin specific screw designs	✓	
Second hopper position for easy emptying	✓	
Powered hopper shutoff		✓
Hopper drawer magnet		✓
Hopper with minimum level monitoring		✓
Hopper access walkway		✓
Injection unit access platform		✓
Color changing feature		✓

	Standard	Option
Controls Features		
Industrial PC machine control with Windows™ style operator interface	✓	
Data storage on USB, hard drive and CD	✓	
Solid state heater relays	✓	
Ultrasonic non-contact position transducers on clamp injection unit and ejector, 5 micron resolution	✓	
Flat panel colour operator interface, touch screen	✓	
Sealed electric cabinet with internal air circulation fan	✓	
Star delta motor starter	✓	
Hour meter	✓	
Ports for parallel printer, external keyboard and mouse, external screen, ethernet, and modem	✓	
Closed loop control of injection speed, hold pressure, back pressure, and fill pressure limiting	✓	
10 step injection speed profile	✓	
10 step recovery speed and back pressure profiles	✓	
10 step hold pressure profile	✓	
Graphical display of injection speed, injection pressure, clamp pressure, platen speed	✓	
Cushion control and monitoring	✓	
Transition injection to hold by position, time, hydraulic pressure	✓	
Screens in English and one other world language with on-line language switching	✓	
Imperial and metric units with on-line switching	✓	
Set and actual parameters in engineering units	✓	
Explicit alarm descriptions with on-line help	✓	
Save / recall of over 1000 machine setups with set-up transfer on CD or USB device	✓	
Cycle time, highest priority alarm, clock & machine status on every screen	✓	
Setpoint limit checking	✓	
Multi-level password protected data entry	✓	
Troubleshooting screens	✓	
Machine events (20000) and downtime reports	✓	
SPC/SQC software package with analysis, and alarms (20000 cycles)	✓	
Storage of process values (10000 cycles)	✓	
Machine and mold heat scheduling	✓	
Timer based, automatic heat reduction if machine stops	✓	
Production counter with completion alarm	✓	
Audible alarm	✓	
High ambient temperature package		✓
Set point change reason reporting		✓
Power outlet package		✓
Host computer interface		✓
Injection compression		✓
Hotrunner temperature controls interface		✓
Photo eye part detection		✓
Interface to auxiliary devices		✓
Hydraulic Features		
Independent servo valve control of clamp tonnage, mold stroke and injection	✓	
Variable displacement pumps	✓	
High efficiency water cooled drive motor	✓	
Noise reducing fully enclosed power pack	✓	
Face-seal fittings	✓	
Quick connector on filter for oil filling	✓	
High flow bypass oil filtration (3 micron) with pressure drop monitoring	✓	
Oil level monitoring	✓	
Closed loop oil temperature control	✓	
Oil preheating	✓	
Hydraulic hose restraints on pressure lines	✓	
Mold services identified with nameplates	✓	
High and low oil temperature alarms	✓	
High oil temperature pre-alarm	✓	
Pressurized oil tank for minimum contamination	✓	
Centralized oil collection and recovery system	✓	
Quick connectors for hydraulic guage (supplied) at key hydraulic test points	✓	
Hydraulic supply for customer requirements		✓

Clamp

		H225
Clamp Force	kN	2250
Tiebar Spacing (Horizontal x Vertical)	mm	660 x 660
Platen Size (Horizontal x Vertical)	mm	950 x 950
Clamp Stroke ⁽¹⁾	mm	540 / 920
Shutheight (Min / Max)	mm	280 / 660
Daylight	mm	1200
Ejector Stroke	mm	100
Ejector Force	kN	141
Tiebar Diameter	mm	110
Maximum Mold Weight ⁽⁶⁾	kg	3000
Dry Cycle ⁽²⁾	s	1.22

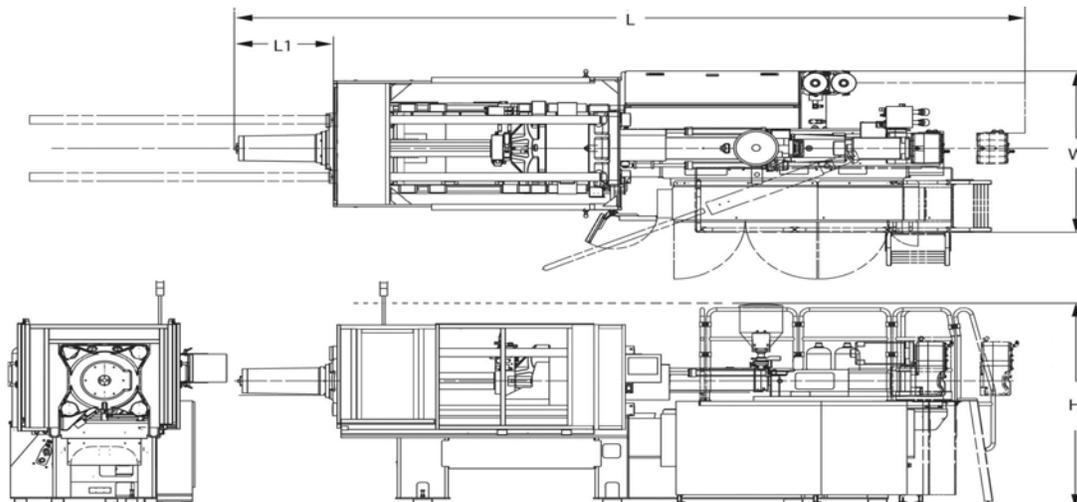
RS Injection Model

		RS55	RS65	RS80	
Working Capacity		980	1612	2651	
Screw Diameter	mm	50	60	65	70
Screw L/D		25.0	25.0	27.1	25.0
Injection Pressure	bar	2080	2000	2350	2030
Injection Stroke	mm	240	285	340	340
Injection Capacity	cm ³	471	806	1128	1308
Barrel Heat Power	kW	21.6	27.2	42.0	42.0
Barrel Control Zones ⁽³⁾		4	4	5	5
High Speed Accumulator Assist Injection Rate ⁽⁴⁾	cm ³ /s	1642	1709	3801	4408
High Speed Accumulator Assist Air Shot Rate	cm ³ /s	3200	3300	6000	7000
Carriage Force	kN	80	80	178	178
Melt Channel Diameter	mm	15	15	22	22
Screw Drive ⁽⁵⁾					
HDPE MFI 1-6					
Screw Speed	RPM	382	318	294	273
Peripheral Screw Speed	m/s	1.0	1.0	1.0	1.0
Screw Torque	Nm	1522	2490	3351	3776
HDPE MFI 7-11					
Screw Speed	RPM	458	382	353	327.4
Peripheral Screw Speed	m/s	1.2	1.2	1.2	1.2
Screw Torque	Nm	1155	1890	2543	2866
Overall Machine Specifications					
Oil Volume	l	630	720	970	
Overall Width x Height	mm	1910 x 2472	1899 x 2522	2017 x 2522	
Overall Length	mm	7418	7788	8692	
Overall Weight	t	13.4	14.6	17.3	

- Notes:**
- (1) Available stroke at maximum shutheight / maximum stroke at minimum shutheight.
 - (2) 100% speed, 100% clamp force using 350 mm stroke.
 - (3) Additional zones provided for barrel head, nozzle adapter, and optional shut-off head.
 - (4) Instantaneous injection rate at 2/3 of maximum available plastic pressure up to 30% injection stroke.
 - (5) Please consult Husky for final resin specific plasticizing performance for your application.
 - (6) Maximum 60% stationary platen, 40% moving platen

Specifications are subject to change without notice.

Some injection combinations may have smaller overall length. For detailed information, refer to detailed machine dimensions in this brochure.



Clamp

		H300	
Clamp Force	kN	3000	
Tiebar Spacing (Horizontal x Vertical)	mm	780	x 780
Platen Size (Horizontal x Vertical)	mm	1130	x 1130
Clamp Stroke ⁽¹⁾	mm	600	/ 1075
Shutheight (Min / Max)	mm	300	/ 775
Daylight	mm	1375	
Ejector Stroke	mm	98	
Ejector Force	kN	141	
Tiebar Diameter	mm	130	
Maximum Mold Weight ⁽⁶⁾	kg	3000	
Dry Cycle ⁽²⁾	s	1.33	

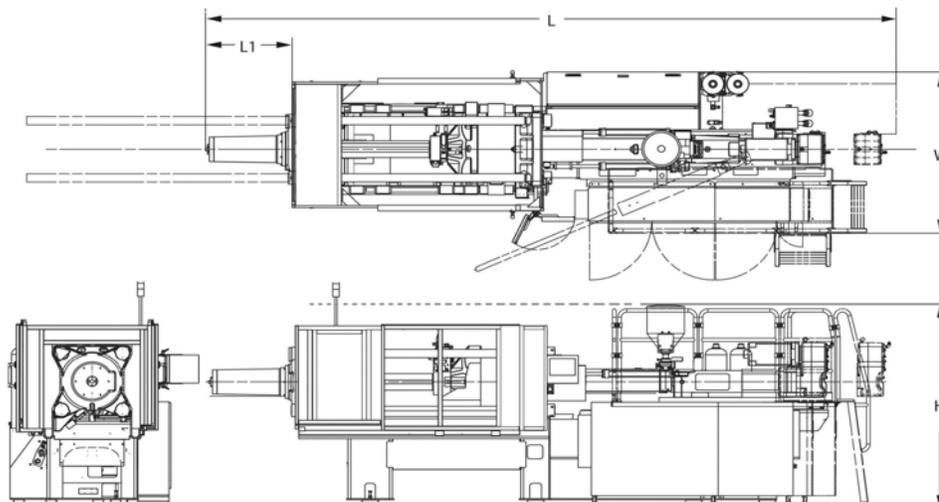
RS Injection Model

		RS65	RS80		RS95		
Working Capacity		1612	2651		4756		
Screw Diameter	mm	60	65	70	80	85	
Screw L/D		25.0	27.1	25.0	26.7	25.0	
Injection Pressure	bar	2000	2350	2030	2280	2020	
Injection Stroke	mm	285	340	340	415	415	
Injection Capacity	cm ³	806	1128	1308	2086	2355	
Barrel Heat Power	kW	27.2	42.0	42.0	57.6	57.6	
Barrel Control Zones ⁽³⁾		4	5	5	6	6	
High Speed Accumulator Assist Injection Rate ⁽⁴⁾	cm ³ /s	1709	3801	4408	3973	4485	
High Speed Accumulator Assist Air Shot Rate	cm ³ /s	3300	6000	7000	6300	7100	
Carriage Force	kN	80	178	178	178	178	
Melt Channel Diameter	mm	15	22	22	22	22	
Screw Drive ⁽⁵⁾							
HDPE MFI 1-6							
Screw Speed	RPM	318	294	273	239	225	
Peripheral Screw Speed	m/s	1.0	1.0	1.0	1.0	1.0	
Screw Torque	Nm	2490	3351	3776	5783	6378	
HDPE MFI 7-11							
Screw Speed	RPM	382	353	327.4	286	269.6	
Peripheral Screw Speed	m/s	1.2	1.2	1.2	1.2	1.2	
Screw Torque	Nm	1890	2543	2866	4390	4841	
Overall Machine Specifications							
Oil Volume	l	720	1005		1025		
Overall Width x Height	mm	2016	x	2463	2134	x	2522
Overall Length	mm	8185	9089		9753		
Overall Weight	t	18.3	21.0		22.3		

- Notes:**
- (1) Available stroke at maximum shutheight / maximum stroke at minimum shutheight.
 - (2) 100% speed, 100% clamp force using 350 mm stroke.
 - (3) Additional zones provided for barrel head, nozzle adapter, and optional shut-off head.
 - (4) Instantaneous injection rate at 2/3 of maximum available plastic pressure up to 30% injection stroke.
 - (5) Please consult Husky for final resin specific plasticizing performance for your application.
 - (6) Maximum 60% stationary platen, 40% moving platen

Specifications are subject to change without notice.

Some injection combinations may have smaller overall length. For detailed information, refer to detailed machine dimensions in this brochure.



Clamp

		H400	
Clamp Force	kN	4000	
Tiebar Spacing (Horizontal x Vertical)	mm	920	x 920
Platen Size (Horizontal x Vertical)	mm	1310	x 1310
Clamp Stroke ⁽¹⁾	mm	725	/ 1280
Shutheight (Min / Max)	mm	320	/ 875
Daylight	mm	1600	
Ejector Stroke	mm	136	
Ejector Force	kN	187	
Tiebar Diameter	mm	148	
Maximum Mold Weight ⁽⁶⁾	kg	7500	
Dry Cycle ⁽²⁾	s	1.39	

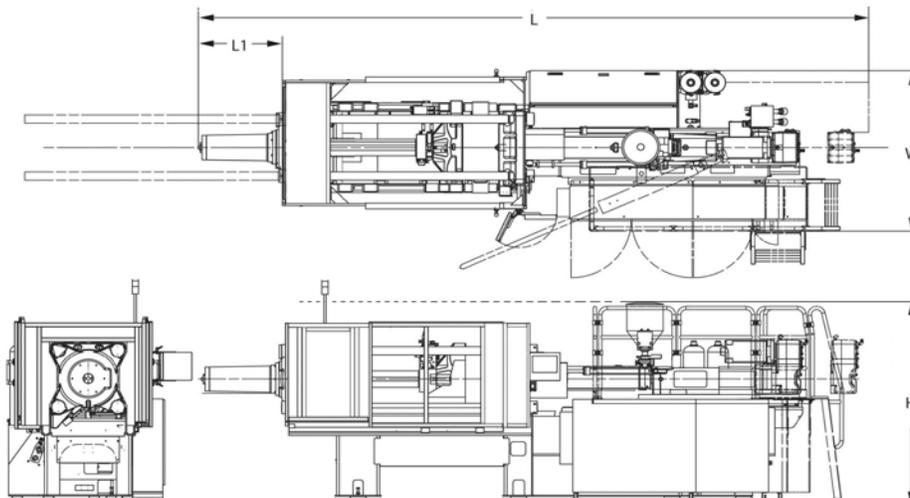
RS Injection Model

		RS80		RS95	
Working Capacity		2651		4756	
Screw Diameter	mm	65	70	80	85
Screw L/D		27.1	25.0	26.7	25.0
Injection Pressure	bar	2350	2030	2280	2020
Injection Stroke	mm	340	340	415	415
Injection Capacity	cm ³	1128	1308	2086	2355
Barrel Heat Power	kW	42.0	42.0	57.6	57.6
Barrel Control Zones ⁽³⁾		5	5	6	6
High Speed Accumulator Assist Injection Rate ⁽⁴⁾	cm ³ /s	3801	4408	3973	4485
High Speed Accumulator Assist Air Shot Rate	cm ³ /s	6000	7000	6300	7100
Carriage Force	kN	178	178	178	178
Melt Channel Diameter	mm	22	22	22	22
Screw Drive ⁽⁵⁾					
HDPE MFI 1-6					
Screw Speed	RPM	294	273	239	225
Peripheral Screw Speed	m/s	1.0	1.0	1.0	1.0
Screw Torque	Nm	3351	3776	5783	6378
HDPE MFI 7-11					
Screw Speed	RPM	353	327.4	286	269.6
Peripheral Screw Speed	m/s	1.2	1.2	1.2	1.2
Screw Torque	Nm	2543	2866	4390	4841
Overall Machine Specifications					
Oil Volume	l	1020		1035	
Overall Width x Height	mm	2258	x 2522	2258	x 2522
Overall Length	mm	9738		10402	
Overall Weight	t	27.6		28.9	

- Notes:**
- (1) Available stroke at maximum shutheight / maximum stroke at minimum shutheight.
 - (2) 100% speed, 100% clamp force using 350 mm stroke.
 - (3) Additional zones provided for barrel head, nozzle adapter, and optional shut-off head.
 - (4) Instantaneous injection rate at 2/3 of maximum available plastic pressure up to 30% injection stroke.
 - (5) Please consult Husky for final resin specific plasticizing performance for your application.
 - (6) Maximum 60% stationary platen, 40% moving platen

Specifications are subject to change without notice.

Some injection combinations may have smaller overall length. For detailed information, refer to detailed machine dimensions in this brochure.



Clamp

		H500	
Clamp Force	kN	5000	
Tiebar Spacing (Horizontal x Vertical)	mm	1020	x 1020
Platen Size (Horizontal x Vertical)	mm	1440	x 1480
Clamp Stroke ⁽¹⁾	mm	850	/ 1450
Shutheight (Min / Max)	mm	350	/ 950
Daylight	mm	1800	
Ejector Stroke	mm	136	
Ejector Force	kN	187	
Tiebar Diameter	mm	168	
Maximum Mold Weight ⁽⁶⁾	kg	10400	
Dry Cycle ⁽²⁾	s	1.51	

RS Injection Model

		RS80		RS95	
Working Capacity		2651		4756	
Screw Diameter	mm	65	70	80	85
Screw L/D		27.1	25.0	26.7	25.0
Injection Pressure	bar	2350	2030	2280	2020
Injection Stroke	mm	340	340	415	415
Injection Capacity	cm ³	1128	1308	2086	2355
Barrel Heat Power	kW	42.0	42.0	57.6	57.6
Barrel Control Zones ⁽³⁾		5	5	6	6
High Speed Accumulator Assist Injection Rate ⁽⁴⁾	cm ³ /s	3801	4408	3973	4485
High Speed Accumulator Assist Air Shot Rate	cm ³ /s	6000	7000	6300	7100
Carriage Force	kN	178	178	178	178
Melt Channel Diameter	mm	22	22	22	22
Screw Drive ⁽⁵⁾					
HDPE MFI 1-6					
Screw Speed	RPM	294	273	239	225
Peripheral Screw Speed	m/s	1.0	1.0	1.0	1.0
Screw Torque	Nm	3351	3776	5783	6378
HDPE MFI 7-11					
Screw Speed	RPM	353	327.4	286	269.6
Peripheral Screw Speed	m/s	1.2	1.2	1.2	1.2
Screw Torque	Nm	2543	2866	4390	4841
Overall Machine Specifications					
Oil Volume	l	1020		1035	
Overall Width x Height	mm	2352	x 2522	2383	x 2522
Overall Length	mm	11338		12002	
Overall Weight	t	32.0		33.3	

- Notes:**
- (1) Available stroke at maximum shutheight / maximum stroke at minimum shutheight.
 - (2) 100% speed, 100% clamp force using 350 mm stroke.
 - (3) Additional zones provided for barrel head, nozzle adapter, and optional shut-off head.
 - (4) Instantaneous injection rate at 2/3 of maximum available plastic pressure up to 30% injection stroke.
 - (5) Please consult Husky for final resin specific plasticizing performance for your application.
 - (6) Maximum 55% stationary platen, 45% moving platen

Specifications are subject to change without notice.

Some injection combinations may have smaller overall length. For detailed information, refer to detailed machine dimensions in this brochure.

