



-Connect **Production Quality Control System**



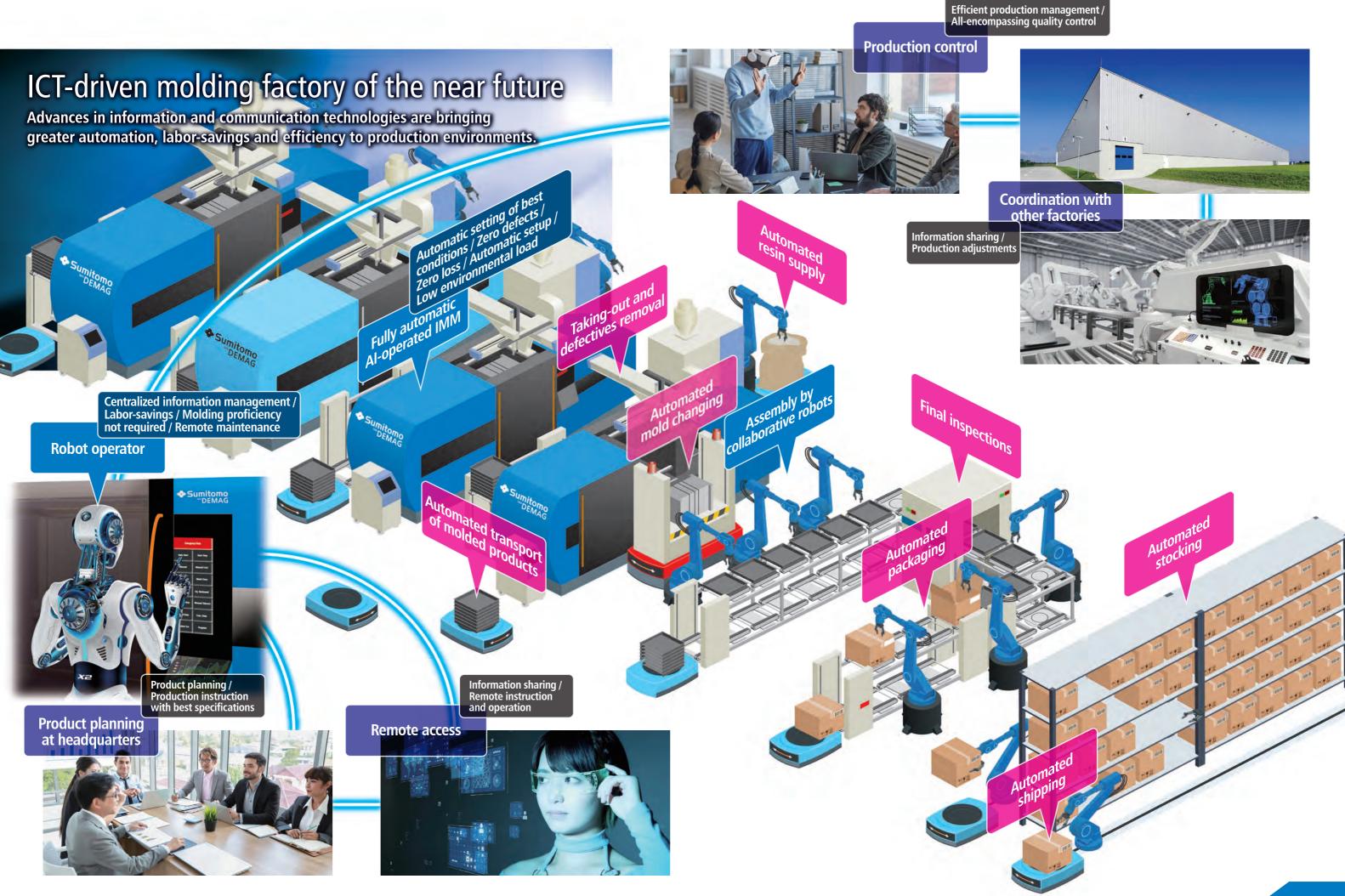
www.shi.co.jp/plastics/





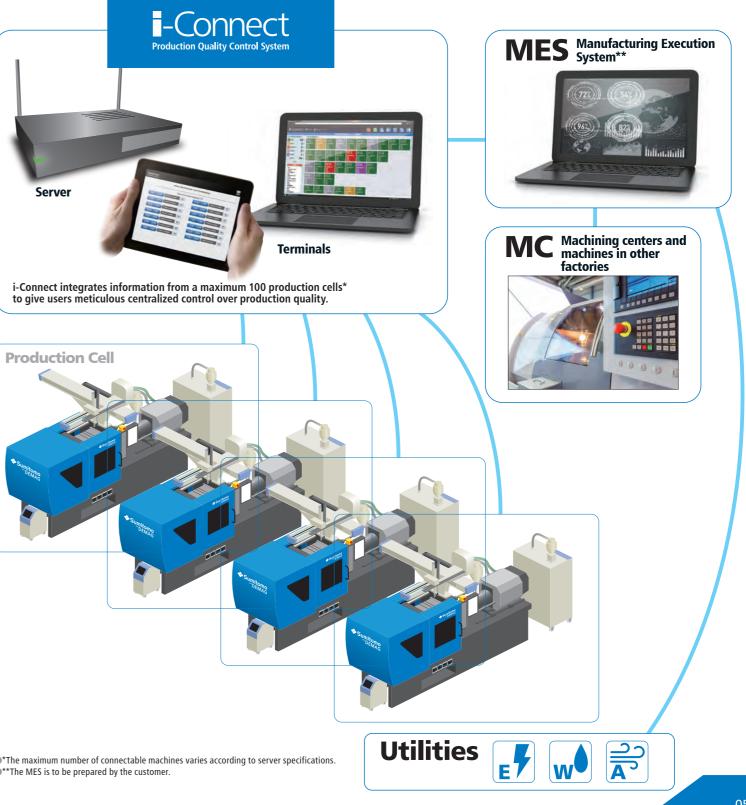
 Photographs of application images may differ from actual products.
 Specifications subject to change without notice for performance improvement. ©2019 - 2023 Sumitomo Heavy Industries, Ltd. All rights reserved.





Broader, deeper and easier grasp of production information[®] 11101 All kinds of data vital to product quality are collected, integrated, then analyzed and logged with simple operations. :0111010 00110 -Connect 101001 00111010101010 0100101 **Production Quality Control System h161** / **Production Cell** A production unit with a molding machine as the core Takeout robot Mold **Resin dryer** Various sensors Mold temperature controller The information from peripheral equipment and sensors is sent to the molding machine by M2M communications.

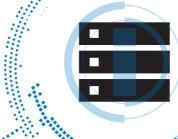
i-Connect is a core application of ICT for production environment which integrates information from each production cell consisting of a molding machine, peripheral equipment and sensors. It improves monitoring and control of all production cells in leaps and bounds to enable sophisticated, borderless and effective quality control over both processes and products. Moreover, by connecting to upper control systems such as MES (Manufacturing Execution System), it can bring greater automation, labor-savings and efficiency to production environments. i-Connect is a core system to accomplish an automated and labor-saving near-future factory.





Build a smart information network

Networks with i-Connect as a core dramatically improve the efficiency of quality control operations.



•For server recommendations, see pg. 17. •The customer is responsible for preparing the environment for external connections.

-Connect

Production Quality Control System

Molding "visualized"

Various information on molding is processed centrally. Up to 100 molding machines can be managed on a single network. The maximum number of connectable machines varies according to server specifications.

> Speedy, precise on-site instructions Prompt and accurate response from the work floor reduces production losses.

Information sharing with business partners

By sharing molding information in real-time, users can eliminate lost time and enhance reliability.



Telework options

i-Connect allows for new work styles in quality control.



Remote verification Production quality can be understood in every detail without being physically present at the plant.



Direct access to information anywhere Real-time information can be incorporated into meeting agendas.

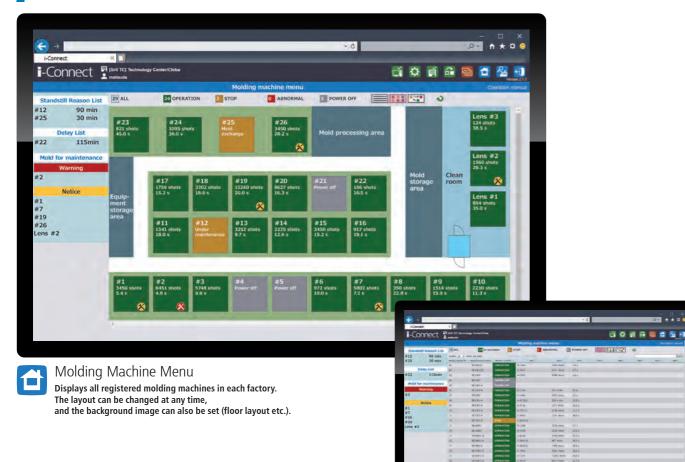
Production control from remote location The necessary information can be promptly communicated to operators from offices.

Broader grasp of information

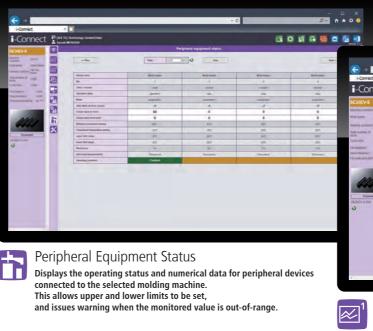
i-Connect centralizes quality control information from your factories around the world and displays it through the intuitive visual that make production planning swift, efficient and effective.

Intuitive control on the entire factory with an overview list

Icon placement that matches the factory layout allows understanding of the operational status of each machine in an instant. It is also possible to display a list of operation transition or production progress graph for each machine.

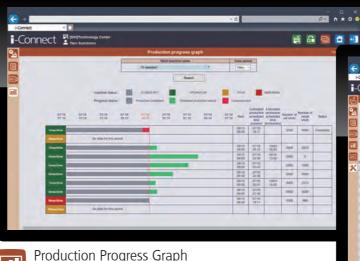


Acquires data such as temperature, operating status, etc. of peripheral devices, and displays them in a list. Separate molding machine option(s) might be required for connection with peripheral devices and sensors.



Examples of Utilization Production planning

Production can be appropriately planned because users get a quick look at the production progress and maintenance information.



Status and progress of each molding machine is centrally managed.

Users can spot under- or over-production at a glance.



3450 shots 15.2 s



Molding Machine Menu (Listing mode) It can also be displayed in list format.

Real-time understanding of the entire production cell

Ct Internation	
	ci 🗘 🗑 🙃 🚾 🗖 🚰 🦉
Cuality control chart	Operation manual
Carl Law Section 2 and Section	Macanum detailing quantity (MAI 1000)1-5000
202 (12 m) (1 m) (1 m) (0 m) (222 (12 m)	u (14 u) (21 u) (17) (19
Live grant (baser grant Live grant)	Settlines
	and
	* Earned sees is ober love graph and Norden of shelps are satisfied.
- Sart	File suppl
6	140
	advision and a state of the sta
- + + + + + + + + + + + + + + + + + + +	and a shere a shere is a shere of the shere
	201
····	

Quality Control Chart

Understanding of the relationship between the actual temperature of the mold temperature controller and the filling peak pressure of the molding machine is also possible by comparing graphs.

					_		- 6	_			p	
_			_			_		-		_	P	
-									-			-
ct 🗄	SHI TCJ Technolo Nativoda	ey CenterChil							ă 🔅	É 6	i 🚳	
				Mainter	nance ma	nagement			-			Operation many
aparant									_			
_	Management of the	_	-	-	and and a				Bala		_	_
		1 days					-					
	14700		-	2 moting matrice			-					
- Equipm	-	den	Maint	antonca itam		Samples .	Seature				Q Quantity	
		_					441	*		GK 200	1-08080	
			2 3 New Las									(area
	Epiperet-	(Antes	Maintanan Inet -	Annatia -	Bases -	Explore angletation) +	Expline antiference of a	Name	rahimitikini ang a	Name	Fahirs/Warrin	
			Matemature Inet -		Return -	Expire additional + 2000-00-14 2002-00-27	Expine ant/Huming) + 2005-04-13 2021-06-27	Name	rahara/Hatisa) -	Number of	f share(Herror	
	Responses - Bill Mari 270	(Antes	Maintanan Inet -			2020-06-14 2021-06-27 2021-06-28	3036-09-13 2021-06-27 2021-07-03	Name of	ration (desired) of	Renter of	f shars(Wassing	
	Epigenet dill litter 272 litter	(Antes	Matemature Inet -			2020-06-14 2027-06-27 2027-06-28 2027-06-28	2020-09-13 2021-00-37 3021-07-05 2021-07-05	N	ration (discover)	Name of	f shars(Humin	
	Responses - Bill Mari 270	JOTTSA	Malmacanda Itani * Jigit Gegenig		- the starting	2020-00-14 2027-00-27 2027-00-28 2027-00-28 2027-00-28 2027-07-29	2020-09-13 2021-00-37 2021-07-05 2021-07-05 2021-07-08 2021-07-08		ration (discover)	Name of	f ahara(Mannin	
	Epigenet dill litter 272 litter	JOTTSA	Matematics have - App Country INCOMENT		IIII	2020-00-14 2021-00-27 2021-00-28 2021-00-28 2021-00-28 2021-07-26	2006-04-13 2021-06-37 2021-07-05 2021-07-05 2021-07-06 2021-07-06 2021-07-06	Name of	rahanijilaning i	Report of	f shars(Humin	
	Represent- tate Name 200- Tate Alt	Notes	Rainmounte team + Rail Channy BEROFFS7 RECOTTS7			2020-06-14 2027-06-27 2027-06-28 2027-06-28 2027-06-28 2027-07-28 2027-07-28	2005-04-13 2007-05-27 2007-07-20 2007-07-20 2007-07-20 2007-07-20 2007-07-20	Acres 1	f alterațilaterați d	Name of	f ahara(Wantin	
	82 82 86 277 16 83 5008	Kontra Kontra Unexe	National and a Appl Country INCOMENT		IIIIII	2020-06-14 2527-06-27 2627-06-28 2527-06-28 2527-06-28 2527-06-28 2527-26 2527-26 2527-26 2527-26 2527-27-28 2527-27-28	2005-59-13 2021-66-37 2021-67-80 2021-67-80 2021-67-80 2021-67-58 2021-67-58 2021-67-59 2021-66-37	Acres 1	rahara/Koninaj d	Renter of	f ahara(Wassin	
- Bad	Epipeet 82 Inc 27) Inc 83 Sector 7w	Anno Korroz Unes Europer Junto	Matematica Intel 4 301 County 2010/11/3 2010/11/3 400		IIII	2020-06-14 2027-06-27 2027-06-28 2027-06-28 2027-06-28 2027-07-28 2027-07-28	2005-04-13 2007-05-27 2007-07-20 2007-07-20 2007-07-20 2007-07-20 2007-07-20	Acres 1	ratura (tintur) d	-	f shara(Hamin	
	Epipeet 82 Inc 27) Inc 83 Sector 7w	Kontra Kontra Unexe	Matematica Inter- Jat Onereg 20062752 20062752 400 5320005 600			2020-06-14 2020-06-27 2027-06-28 2029-06-38 2029-06-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38	2002-96-13 2021-06-27 2021-27-20 2021-27-20 2021-27-20 2021-27-28 2021-27-38 2021-47-38 2021-07-38 2021-02-39	8-	f abara/koncep d		f ahara(Hamin	g) + Number of re 6733
Bad-	Exponent dS Inc 777 In dS SAURE For 2 DERES Exclu	Anna - Softisk Units 2006 2006 2006 2006 2006 2006 2006	Matematica last * Ref Charry * 2004/752 400 34200752 400 34200752 400 3420075 400 Charry Charry			2020-06-14 2020-06-27 2027-06-28 2029-06-38 2029-06-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38	2002-96-13 2021-06-27 2021-27-20 2021-27-20 2021-27-20 2021-27-28 2021-27-38 2021-47-38 2021-07-38 2021-02-39	5- 201	natura (distant) d	5 a	f ahara]Wansin	g) - Number of re 4732 1386
Bad-	20000000000000000000000000000000000000	Anno Anno Anno Anno Anno Anno Anno Anno	Matematica lan * 38 Onerry 20(0.07553) 20(0.07553) 20(0.07			2020-06-14 2020-06-27 2027-06-28 2029-06-38 2029-06-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38 2029-07-38	2002-96-13 2021-06-27 2021-27-20 2021-27-20 2021-27-20 2021-27-28 2021-27-38 2021-47-38 2021-07-38 2021-02-39	50- 2001 20	ratura (tintra) -	NU Faladi TOS	f ahars) Hansin	g) • Number of w 4732 (188. 1942
Bad Salar Salar Salar	Expression data inter 275 iner data Saminiti For 2 Saminiti For 2 Saminiti For 2 Saminiti Saminiti For 2 Saminiti Saminiti Saminiti Saminiti Saminiti For 2 Saminiti Saminita	COTTO COTTO	Notematic test + 388 County 288(c)??>7 588(c)??>7			3025.05.14 2021-06.27 2021-06.20 2021-06.20 2021-05.20 2021-26-20 2021-27-26 2021-27-26 2021-27-26 2021-27-26 2021-27-26 2021-27-26 2021-26-24	2006-94-13 2013-86-27 2013-87-80 2013-87-80 2013-87-80 2013-87-88 2013-87-88 2013-87-88 2013-88-87 2013-88-87 2013-88-87 2013-88-87 2013-88-87	5- 201	-	5 a	(aband) (Karning	g) - Number of re 4732 1386
Balling Balling Balling Balling	Exponent dd2 iso 275 Iw dd5 275 Iw dd5 Tw Z Define Z Define Z C C	Intern COTTSA Units SCOTTSA Units SCOTTSA SCOT	Matematics last + 385 386 286 286 286 286 286 286 286 286 286 286 286 286 286 286 286 287 288			2002-00-14 2021-00-27 2021-00-28 2021-00-28 2021-07-28 2021-07-28 2021-07-28 2021-07-28 2021-07-28 2021-07-28 2021-07-28 2021-07-28 2022-00-40	2000-09-13 2019-09-17 2019-09-17 2019-07-09 2019-07-39 2019-07-39 2019-07-39 2019-07-39 2019-07-39 2019-09-17 2019-09-09	50- 2001 20	r ehere/Kolony d	NU Faladi TOS	f share(Harris	g) • Number of w 4732 (188. 1942
Had Halled Palled Palled Halled Halled	Exponent data land land 777 lan data 740 Satella Far 2 Satella	Access Control Lines Electron	Kelmanne kan * Str Str Convey IN(2)7525 Str Convey Str Convey Str Convey Str			2020-06-14 2020-06-07 2021-06-03 2021-06-03 2021-06-03 2021-07-03 2021-07-03 2021-07-03 2021-07-04 2021-07-04 2022-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-04 2020-07-07-04 2020-07-07-07-07-07-07-07-07-07-07-07-07-07	2000-09-13 2013-09-13 2013-07-23 2013-07-28 2010-07-28 2010-07-28 200-07-28	50- 2001 20	nan fan ei fan ei	NU FAME TOX	f share(Harris	g) • Number of w 4732 (188. 1942
Had Estilut Estilut Estilut Estilut Estilut Estilut	вроинт в2 27	Anno ACTEST Lines Lines Kit Canada Kit Canada Lines Lines Lines Lines Lines Lines Lines Lines Lines Lines	Kennessen kan * Jaf Convey TREC/F52 TREC/F52 RE Sage S	920		2020.00.14 2021-06-21 2021-06-21 2021-06-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2022-06-01 2022-06-01 2022-06-01	2005-09-13 2001-07-20 2001-07-20 2001-07-20 2001-07-30 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-06-37 2001-07-38 2001-06-37 2001-07-38 2001-06-37 2001-07-38	50- 2001 20	rakons (konsen e	NU FAME TOX	fahara (Hannin	g) • Number of w 4732 (188. 1942
2014 2014 2014 2014 2014 2014 2014 2014	Exponent BE BE Tory Ter Seenal Ter Seenal Declar C C C C C C C C C	Control Control Land Ellipsi Control State	Kelmanne kan * スター スー	721		2020.00.14 2021-06-21 2021-06-21 2021-06-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2022-06-01 2022-06-01 2022-06-01	2000-09-13 2013-09-13 2013-07-23 2013-07-28 2010-07-28 2010-07-28 200-07-28	56- 2000 86 860	rakan (konce) -	10 And 10 100	fahins (Hamin	g - Reiter d'er 0722 005 1605 1605
Had Estilut Estilut Estilut Estilut Estilut Estilut	Exponent a2 bac 275- 1w ba South South 2 2 2 2 2 2 2 2 2 2 2 2 2	Anno A SOTTOS Union Southern S	Ноловите на * Зат Сонену 2560/7523 2560/7523 2560/7523 486 246 258 268 268 268 268 268 268 268 26	721	ritanig islani	2020.00.14 2021-06-21 2021-06-21 2021-06-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2021-07-30 2022-06-01 2022-06-01 2022-06-01 2022-06-01	2002.04.13 2001-06.77 2001-07.00 2001-07.00 2001-07.30 2001-07.30 2001-07.30 2001-07.30 2001-06.07 2002-06.01 2002-000-0000000000000000000000000000	50- 2001 20	takan (katara) -	NU FAME TOX	rahana/Hannin	g) • Number of w 4732 (188. 1942
2004 2005 2005 2005 2005 2005 2005 2005	Exponent BE BE Tory Ter Seenal Ter Seenal Declar C C C C C C C C C	Control Control Land Ellipsi Control State	Нолининания - Лай Сонину 2000-075-52 2000-075-52 2000-075-52 2000-075-52 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075-52 2000-075-5	722	ritering elianti	2002.00.14 2003.00.17 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.000	2000,09,14 2001,46,17 2001,27,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,46,26 2002,46,45 2003,46,46,46 2003,46,46,46 2003,46,46,46,46,46,46,46,46,46,46,46,46,46,	56- 2000 86 860	raturațiuni și	10 And 10 100	f alvera (Yaamiy	g - Reiter d'er 0722 005 1605 1605
કાર્યાં છે. કાર્યાં છે. કાર્યાં છે. કાર્યાં છે. કાર્યાં છે.	Exponent a2 bac 275- 1w ba South South 2 2 2 2 2 2 2 2 2 2 2 2 2	Anno A SOTTOS Union Southern S	Hormson to be 1 Apt Convery TRE 2x177.57 RE(2x177.57 H) SER	721	Titoring Titori	2992-06-14 2992-66-27 2992-66-28 2992-66-28 2992-67-28 2992-67-28 2992-67-28 2992-67-28 2992-66-20 2992-66-20 2992-66-20 2992-66-27	2002;49:14 2013;49:77 2014;67:00 2014;67:00 2014;67:00 2014;67:00 2014;67:00 2014;67:00 2014;67:00 2014;67:00 2015;49:40 2015;40;40;40;40;40;40;40;40;40;40;40;40;40;	56- 2000 86 860	and the second second	10 And 10 100	rahan (Marana	g - Reiter d'er 0722 005 1605 1605
4000 4000 4000 4000 4000 4000 4000 400	Exponent a2 bac 275- 1w ba South South 2 2 2 2 2 2 2 2 2 2 2 2 2	Anno A SOTTOS Union Southern S	Нолининания - Лай Сонину 2000-075-52 2000-075-52 2000-075-52 2000-075-52 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075 2000-075-52 2000-075-5	72.	ritering elianti	2002.00.14 2003.00.17 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.00.00 2003.000	2000,09,14 2001,46,17 2001,27,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,47,26 2001,46,26 2002,46,45 2003,46,46,46 2003,46,46,46 2003,46,46,46,46,46,46,46,46,46,46,46,46,46,	56- 2000 86 860	ratura (dina	10 And 10 100	fahan) Musaka	g - Reiter d'er 0722 005 1605 1605



Maintenance Management

By setting maintenance intervals for molds and equipment parts, trouble can be predicted, and maintenance performed properly.



Maintenance Alerts

Alert icons are displayed over machine icons on the Molding Machine Menu screen (left page) when the maintenance period is approaching.

Deeper grasp of information The ability to track production down to the behavior of a single shot on a single machine enables reliable traceability.

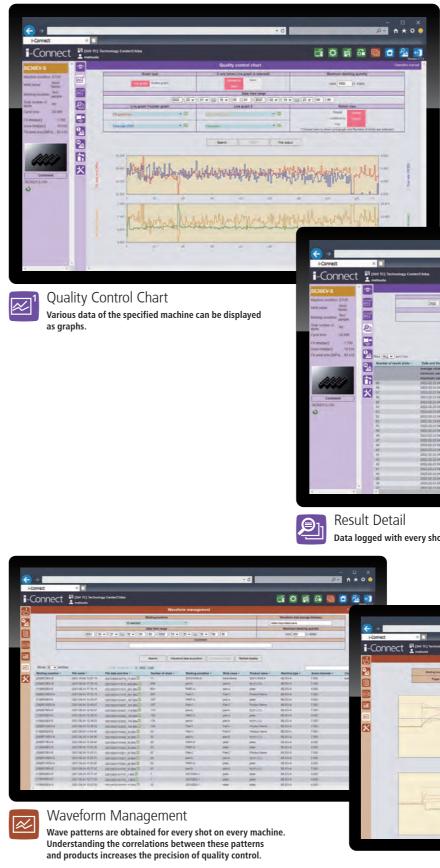
Examples of Utilization Time-based data management 14 History information of each lot can be collectively managed. Machine running status or conditions that were logged during a certain period of time can be easily verified, which facilitates product tracing. - fin 1 -Connect ci 🗘 🖬 🙃 🔯 🗖 🚰 🚮 1000 1 -100 a Promier Pressos Bre Pa Calling and verification of molding condition are possible. Image is blurred on purpose. - - × \swarrow^2 Event Analysis Molding machine status, items, and condition alterations are displayed on a graph, and events searching is possible. Dryer:No... Mold Cleaning Robot:Ab. History of Stop Temperat. Others Stoppage and alarm histories can be scrupulously

managed for the specified machine

Examples of Utilization

Thorough data management down to each shot

Managing data by individual shots allows users to check back and verify whether products were being stably molded at any point in time, giving them a useful tool for building traceability systems and practices.



Allows input and analysis of the causes of stoppage

				-	C		,p -	h 🛧 🌣 🤅
hology Cent	w/Philes					-		-
								🖬 🚰 स
			Result det	a d				Operation manual
-		Če	A View nange			Ma	imum detailing quantity)
	2022 / 02 -	0 - 00 - 00 - 00	- + 2022 - + 02 +	28 - 19 23 -	- 59 59	3	AX 200 (1-9999)	
			A	Pit d		-		
		1241-00	0421-40 04	11-10 CERT	E CONTRACTO			
								_
			Search	File subjut				
			ENG_BUT FE	10多4年一9月8月	11			
estites -								Refire
* storig flues	Date and time -	Total number of shors(shors) -	Cycle time[sec] +	Fill time[sec] >	Done time[sec] *	Flow rate CHD1[14] *	Flow rate CH02[%] ~	Fill pask pres.[MPa]
	average value	53, 545	29.244	0.641	7.80t	-0.004	0.079	70.192
	minimum value	1 882	21 250	0.205	10.00	-2.004	0.0/14	30.189
	maximum value	124 000	1236,450	D ANA	4 229	000 3	0.060	710.175
	2022-02-23.04.53.18	89	21,258	0.208	0.464	-0.004	0.079	30.430
	2022-02-23 04:52:57	58	28.432	0.467	9.704	-0.004	0.079	70.089
	2022-02-21 64 52 12	57	80.264	0.457	0.904	-0.502	0.080	84.403
	2022-02-22 04:51:30	56	21,264	0.256	0.804	40.004	0.000	37,587
			21,214	0 455	3,800	4.002	0.071	71.100
	2022/02/32 04:51:00						0.07%	71.595
	2022-02-25-04:60:48	64	21.294	0.457	1.624	-0.004		
	2022-02-23-04-50-48 2022-02-23-04-90-29	54 54	21204	0.457	1832	101004	0.079	75.500
	2022-02-23-04-50-48 2022-02-23-04-50-26 2022-02-22-04-50-26	54 52 52	21.294 21.284 21.284	0.457	1832	42 004	0.079	79.500
	2022-02-23 04-50-48 2022-02-23 04-50-28 2022-02-21 04-50-26 2022-02-21 04-50-05 2022-02-23 04-48-44	54 50 57 81	21294 21284 21284 21284 21284	0.467 0.467 0.467	1800 1804 1806	-0 004 -0 004 -0 004	0.079 0.000 0.079	71.100 71.000
	2022-02-25-04-50-48 2022-02-21-04-50-29 2022-02-22-04-50-06 2022-02-23-04-40-44 2022-02-23-04-40-42	54 53 52 51 50	21.254 21.254 21.254 21.254 21.254	0.457 0.457 0.457 0.457	1832 1834 1856 1860	41904 41904 41904 41904 41904	0.000 0.000 0.079 0.079	71.180 73.009 70.785
	2002-03-25-04-50-48 2002-03-25-04-90-29 2002-03-25-04-90-50- 2002-02-25-04-90-44 2002-02-25-04-49-44 2002-02-25-04-49-10	54 55 55 69	21.294 21.284 21.284 21.284 21.284 21.284 21.284	0.457 0.457 0.457 0.457 0.457 0.457	1837 1824 1856 1950 1872	40 004 40 004 40 004 40 004 40 004 40 004	0.079 0.000 0.079 0.079 0.079	71.100 71.009 70.785 73.100
	2002-02-25 04-50-48 2002-02-21 04-50-56 2002-02-21 04-50-56 2002-02-23 04-48-49 2002-02-23 04-48-49 2002-02-20 04-48-50 2002-02-20 04-48-50 2002-02-20 04-48-50	54 52 52 59 64 65	21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.272	0.467 0.457 0.457 0.457 0.457 0.456 0.457	1802 1804 1806 1800 1872 1840	4004 4004 4004 4004 4004 4004 4004	0 079 0 000 0 079 0 079 0 079 0 079	71.100 71.009 70.785 71.100 71.009
	2022 42 23 04 50 48 2022 43 23 04 50 48 2022 43 23 04 50 58 2022 43 23 04 50 58 2022 43 23 04 49 22 2022 43 23 04 49 22 2022 43 23 04 49 13 2022 43 23 04 48 13	94 95 92 95 96 96 97	21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.205 21.209	0.467 0.457 0.457 0.457 0.457 0.457 0.457	1822 1824 1886 1880 1877 1840 1877	40 304 40 304 40 304 40 304 40 304 40 304 40 304	0 079 0 000 0 079 0 079 0 079 0 079 0 079	21 100 71 000 70 785 71 100 71 000 71 000
	2022-02-23-54-50-46 2022-02-23-54-60-26 2022-02-23-54-50-26 2022-02-23-54-56-56 2022-02-23-50-44-92-22 2022-02-23-54-46-50 2022-02-23-54-46-51 2022-02-23-54-47-56	94 52 52 59 66 67 74 65	21.254 21.254 21.264 21.264 21.264 21.264 21.264 21.265 21.269 21.269 21.269	0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457	1800 1804 1806 1800 1807 1840 1804 1808	40004 5 004 4 004 4 004 4 004 4 004 4 004 4 004 4 004 4 004	0 079 0 000 0 000 0 079 0 079 0 079 0 079 0 079 0 079 0 079	71 100 71 000 70 705 71 100 71 000 71 000 71 000 70 040
	2022-02-23 54 50-46 2022-02-23 54 50-26 2022-02-23 54 60 26 2022-02-23 54 64 52 2022-02-23 54 64 52 2022-02-23 54 64 50 2022-02-23 54 64 19 2022-02-23 54 64 19 2022-02-23 54 64 19	64 50 50 69 69 69 69 69 69 69 69 69 69 69 69 69	21.204 21.204 21.204 21.204 21.204 21.204 21.272 21.206 21.206 21.206 21.204	0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457	1800 1824 1824 1855 1850 1872 1840 1856 1866 1866	2 004 2 004	0 079 0 000 0 079 0 079 0 079 0 079 0 079 0 075 0 075 0 075 0 075	71 180 71 000 70 785 71 190 71 000 71 000 71 000 76 640 70 680
	2022-02.23 04 50 48 2022-03-23 04 50 48 2022-03-23 04 50 48 2022-03-23 04 50 56 2022-03-23 04 48 44 2022-05-23 04 48 40 2022-05-23 04 48 10 2022-05-23 04 48 10 2022-05-23 04 48 10 2022-05-23 04 47 10 2022-05-23 04 47 10	64 63 72 89 80 80 80 80 80 80 80 80 80 80 80 80 80	21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.272 21.258 21.258 21.258 21.256 21.256 21.254	0.467 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.455	1802 1824 1895 1895 1872 1842 1844 1888 1880	4 004 4 004	0 0/% 0 000 0 0/% 0 0/% 0 0/% 0 0/% 0 0/% 0 0/% 0 0/%	71 180 71 000 70 705 71 000 71 000
	2022-02.21 04:50-48 2022-02.21 04:50-48 2022-02.21 04:50-50 2022-02.21 04:50-50 2022-02.21 04:40-22 2022-02.21 04:44-22 2022-02.21 04:44-22 2022-02.21 04:44-21 2022-02.21 04:44-15 2022-02.21 04:47-50 2022-02.21 04:47-50 2022-02.21 04:47-50	위 다 고 1 1 50 48 48 48 44 44 44	21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204	0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.455 0.459	1.632 1.624 1.660 1.600 1.672 1.640 1.600 1.600 1.600 1.600	2 004 4 004 4 004 2 004 2 004 2 004 2 004 4 004 4 004 4 004 4 004 4 004 4 004 4 004 4 004 4 004	0.078 0.000 0.078 0.078 0.079 0.079 0.009 0.079 0.009 0.079	71 180 71 009 70 705 71 009 73 009 73 009 74 000 76 641 70 641 70 729 70 729 70 869
	2022-03-23 04-50-48 2023-03-23 04-50-48 2023-03-23 04-50 05 2023-03-23 04-50 06 2023-03-23 04-68 2023-03-23 04-48 2023-03-23 04-48 2023-03-23 04-48 2023-03-23 04-48 2023-03-23 04-48 2023-03-23 04-47 15 2022-04-23 04-47 15 2022-04-23 04-48 16	94 60 52 55 50 60 60 61 61 61 62 64 44 44 44 44 44 44 44	21.204 21.204 22.204 21.204 21.204 21.204 21.204 21.277 21.204 21.204 21.204 21.204 21.204 21.204 21.204	0.467 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.457 0.455 0.457 0.455 0.457	1832 1824 1868 1869 1860 1860 1860 1860 1860 1860 1860 1860	0 004 0 004 00	0.079 0.000 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079	71 180 73 500 70 785 71 198 71 500 71 500 71 500 75 548 70 588 70 588 70 588 70 588
	2022-02-20 450-480 26 2022-02-20 454 50 26 2022-02-20 45 50 56 2022-02-20 45 50 56 2022-02-20 45 50 44 50 2022-02-20 44 50 26 2022-02-20 44 50 27 2022-02-20 44 50 27 2022-02-20 44 50 47 2022-02-20 44 47 56 2022-02-20 44 47 56 2022-02-20 44 45 50 2022-02-20 26 44 51 50 2022-02-20 26 44 51 51 2022-02-20 26 44 51 51	94 50 52 50 50 46 47 46 46 46 44 44 44 44 44	21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204 21.204	0.467 0.467 0.467 0.465 0.457 0.457 0.457 0.457 0.457 0.455 0.459 0.455 0.459 0.457	1832 1824 1896 1896 1897 1897 1897 1897 1898 1898 1898 1899	2 004 2	0.076 0.000 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.079 0.079 0.079	71 188 71 089 70 786 71 198 71 099 71 099 75 548 70 548 70 529 70 289 71 480 70 529
	2022-03-23 04-50-48 2022-04-23 04-50-56 2022-04-23 04-50-56 2022-04-23 04-68 2022-04-23 04-48 2022-04-23 04-44 2022-04-23 04-44 2022-04-20 2022-04-23 04-44 2022-04-20 2022-04-23 04-44 2022-04-23 04-44 2022-04-23 04-44 2022-04-23 04-44 2022-04-20 2022-04-20 2020-04-20 2020-04-20 2020-04-20 2020-04-20 2020-04-20 200-04 2020-04-20 200-04 2020-04-20 200-04 2020-04-20 200-04	94 60 52 55 50 60 67 67 68 86 84 44 40 42 44 40 40	21.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204	0.467 0.457 0.457 0.457 0.455 0.455 0.455 0.457 0.455 0.455 0.455 0.455 0.455 0.455 0.455 0.455 0.455	1 832 1 834 1 865 1 865 1 865 1 865 1 865 1 866 1 865 1	2 304 2 304	0.079 0.000 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079	71 100 71 000 70 705 71 100 71 000 71 000 71 000 71 000 70 000 70 000 70 000 71 400 71 400 71 400 71 400
	2022-02-21-04-50-48 2022-02-21-04-50-50 2022-02-21-21-04-50-50 2022-02-21-21-04-50-50 2022-02-21-21-04-68 2022-02-21-21-04-68 2022-02-21-20-64-75 2022-02-21-04-68 2022-04-68 2022-04-68 2022-04-68 2022-04-68 2022-04-6	의 이 12 12 13 19 19 10 10 10 10 10 10 10 10 10 10	21204 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364 21364	0 467 0 467 0 467 0 467 0 467 0 467 0 467 0 467 0 467 0 466 0 466 0 466 0 466 0 466 0 466 0 467 0 467	1 802 1 824 1 686 1 680 1 872 1 840 1 880 1	2 004 2	0.076 0.000 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078 0.078	71 188 71 089 70 786 71 198 71 198 71 609 71 609 70 689 70 689 70 729 70 889 71 440 71 529 71 440 71 529 71 500
	2022-03-23 04-50-48 2022-04-23 04-50-56 2022-04-23 04-50-56 2022-04-23 04-68 2022-04-23 04-48 2022-04-23 04-44 2022-04-23 04-44 2022-04-20 2022-04-23 04-44 2022-04-20 2022-04-23 04-44 2022-04-23 04-44 2022-04-23 04-44 2022-04-23 04-44 2022-04-20 2022-04-20 2020-04-20 2020-04-20 2020-04-20 2020-04-20 2020-04-20 200-04 2020-04-20 200-04 2020-04-20 200-04 2020-04-20 200-04	위 19 12 19 19 10 10 10 10 10 10 10 10 10 10 10 10 10	21.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204 27.204	0.467 0.457 0.457 0.457 0.455 0.455 0.455 0.457 0.455 0.455 0.455 0.455 0.455 0.455 0.455 0.455 0.455	1 832 1 834 1 865 1 865 1 865 1 865 1 865 1 866 1 865 1	2 304 2 304	0.079 0.000 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079 0.079	71 100 71 000 70 705 71 100 71 000 71 000 71 000 71 000 70 000 70 000 70 000 71 400 71 400 71 400 71 400

Data logged with every shot is aggregated to manage in bulk.

Waveform Instalganeed Option Description Description <thdescriparty in="" th="" the<=""><th>×</th><th></th><th>_</th><th>- 6</th><th>_</th><th>2- n *</th></thdescriparty>	×		_	- 6	_	2- n *
Reven Managanani Reven Managanani <threven managanani<="" th=""> <threven managanani<="" t<="" th=""><th>Total</th><th>240a</th><th></th><th>ă</th><th>0 1 6</th><th>🚳 🖆 🚳</th></threven></threven>	Total	240a		ă	0 1 6	🚳 🖆 🚳
			form management			Operator
	Rading Section	Dalle sinding	· This does and lowe ·	(manaperson)ar.	Balantia	-
	Nam'	PASari, Deal Sari	- 500	16.26	~	1.1
		TE.				

Easier grasp of information

i-Connect makes information sharing and internal/external collaboration smooth and speedy.

Human error can be eliminated by automating and going paperless.

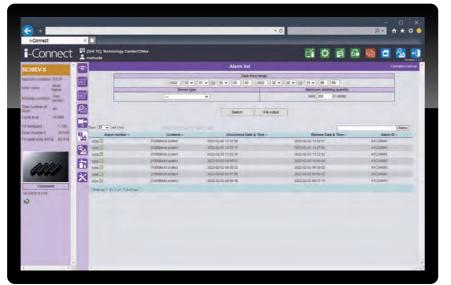


Speedy error handling

Troubleshooting guide is available corresponding to the alarm number, leading to rapid error handling and reduction of downtime.



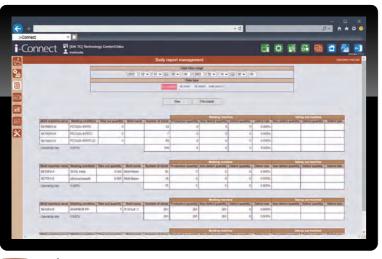
This feature applies only to SE-EV, SE-EV-A, SE-EV-S, SE-EV-A-HD and SE-EV-S-HD series.



Automatic daily report generation

Daily data can be automatically compiled into a report and exported to a CSV file. This paperless operation enables a smooth handoff of work.

Alarm List Displays the alarm history of the specified machine



Daily Report Management Displays daily reports based upon operating data of molding machines.

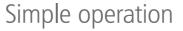
Examples of Utilization Trouble alerts in real-time

Users can stay abreast of operating status, trouble and other events via real-time alerts sent to smartphones, tablets or other devices even if being away from the line or factory.



Molding Machine Menu

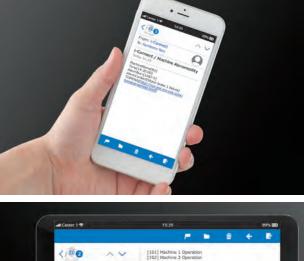
Ô If trouble occurs, an alarm is sounded and a pop-up message noting the effected machine and error code appears.

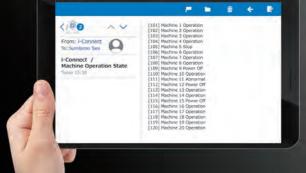


Browser-based application means that there is no installation required. The graphical screen design supports intuitive, speedy operation.





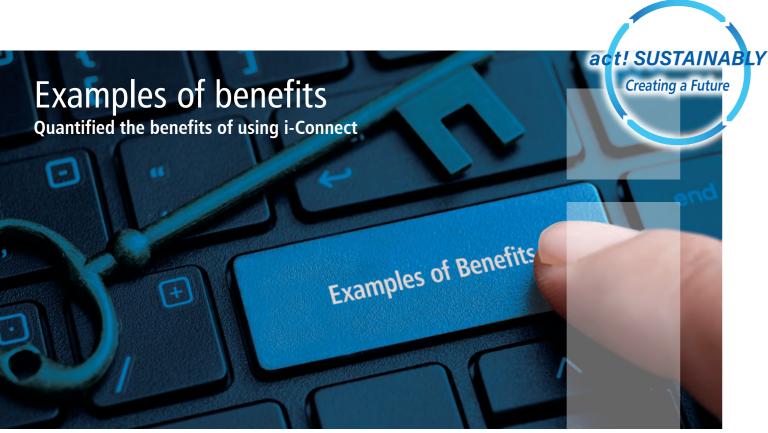




Running status and trouble alerts are sent to user-set email addresses.



Dashboard



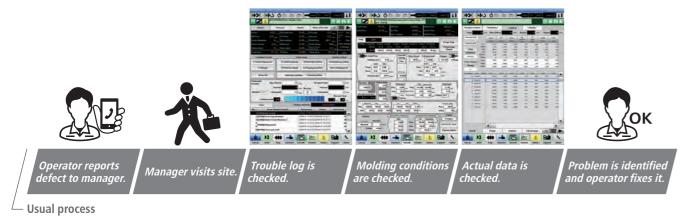
The function suggested by the photo is not a feature of i-Connect.

Identify causes of defects

Users can save a great deal of time when defects occur by eliminating the need to report to a supervisor, visit the site and make verifications in person.

This not only improves yield and decreases defects but also reduces wasted resin, which contributes to SDGs.





Reduced man-hours Manager utilizes Problem is identified **Operator reports** When operators use i-Connect, there is an additional reduction in man-hours defect to manager. Event Analysis. and operator fixes it. ≧-50% -Connect Process when using i-Connect -1 Production Quality Control System **Operator identifies Operator utilizes** Event Analysis. and fixes the problem - Process when using i-Connect -2 Improve production yield Reduce resin waste Lower environmental load

Early discovery and recovery from short time breakdown

Trouble is immediately reported to the manager. Rapid recovery is possible by accessing Tomenai.net (our production technology information website) to verify and respond to measures, resulting in improved operating rate and productivity.









High-performance edge server

Our recommended server offers large storage capacity needed to handle the high-load data analysis at the edge of the user's network. It can retain as much data as a data center, which can be used as big data.

Easy setup and complete security

Setup is quicker than usual because there are no applications to install. Moreover, the server comes loaded with preinstalled security software to protect against data leaks and unauthorized access.

Robust design for factory environment

Durability-enhanced design supports a wide temperature range and guarantees stable operation even under harsh environmental conditions.

Support fast cycle molding and connection of multiple machines

A single server can manage a maximum of 100 machines and offers more than enough capacity to process the high-density data streams from fast cycle molding at 3-second turnout rates. The maximum number of connectable machines varies according to server specifications

Global maintenance

These servers come with 5 years of free maintenance and a replacement of all parts except consumables is free of charge.

Not applicable in some countries and regions.

Maintenance requests are handled through our sales offices.
 Maintenance services are provided by technical staff from HPE (Hewlett Packard Enterprise).

Build the best operating environment

To use i-Connect in the best operating environment, we recommend introducing a high-performance edge server from HPE (Hewlett Packard Enterprise).

Server specification

Item	Standard	High-performance spec
Processor	2.6 GHz x 2 cores	2.0 GHz x 8 cores
Memory	8 GB	32 GB
Storage	SSD 960 GB	SSD 1920 GB, HDD 1 TB
Operating system	CentOS	CentOS
Data retention period	2 months	3 months
Backup capacity	Approx. 10 years' worth	Approx. 10 years' worth
Guaranteed performance	Max. 50 machines connectable	Max. 100 machines connectable

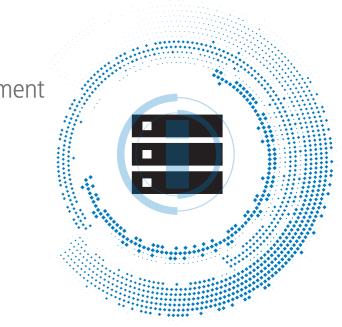
The above server specifications are subject to change without notice.

Verify performance yourself

We have posted a detailed movie about the i-Connect on YouTube. You can access it from the QR Code and verify performance yourself.

• QR Code is a registered trademark of DENSO WAVE INCORPORATED.









Main specifications

Molding	machine menu	
Icon	Name	Functions
	Molding Machine Menu	Showing all molding machines by factory / Trouble pop-up messages and alarms\
2	Factory List	Displaying the number of active molding machines by factory / Displaying the corresponding molding machine menu of the selected factory
€	Logout	Logging out of i-Connect and quitting the application
Molding	machine informa	ition
Icon	Name	Functions
0	Dashboard	Displaying molding machine status and operating ratio
	Quality Control Chart	Projecting and displaying molding machine data as graphs
≥ ²	Event Analysis	Projecting and displaying molding machine status, control items or conditions as graphs / Searching for events
Ð	Result Detail	Displaying actual values of user-selected control items (selectable up to 10 items)
	Molding Condition History	Displaying a history of changes to molding conditions
•	Alarm List	Displaying a history of alarms
0	History of Stop	Displaying a history of molding machine stoppages
67	Peripheral Equipment Status	Displaying the status, set actual values of peripheral equipment
X	Maintenance Management	Displaying a history of periodic maintenance performed on molding machines, molds and peripheral equipment
Analysis		
Icon	Name	Functions
	Restore Backup Data	Reading automatic backup data
2	Operation Trend	Displaying the operating status of the selected molding machine as a bar graph
	Daily Report Management	Viewing daily reports based on performance data from molding machines
	Overall Comparison	Displaying the status and progress of the selected machine as a graph
	Production Progress Graph	Displaying the yield for the set number of shots of each machine
	Waveform Management	Acquiring real-time wave patterns shown on molding machines
X	Maintenance Management	Setting and displaying collective maintenance schedule for molding machines (max. 10), molds and peripheral equipment

Setting		
lcon	Name	Functions
	User Management	Adding/Removing users, setting passwords and selecting languages
ľ	Molding Machine Settings	Displaying a list of registered machines / Adding/Updating/Removing machines
P	IP Address Diagnosis	Checking the network connection and IP address of machines included in connection settings
\bowtie	Email Settings	Setting email function for status reports, trouble notices, etc.
Ĭ	Molding Conditions	Displaying a list of current molding conditions (names) by machine
	Upload by Factory	Registering/Updating background image files by factory
0	Server Machine Status	Displaying the time, available storage space, usage rate, memory usage and CPU usage of the server
Ľ	Client Status	Viewing client information of molding machines (Machine name, IP address, remaining drive capacity, communication status, etc.)
↓	Data Management	Backing up and restoring databases
	Privilege Management	Adding/Removing accessible functions, information displayed on molding machine menus and operating authorizations
К	Factory List	Viewing/Adding/Updating/Removing factory information
0	Token Settings	Converting/Adding/Updating/Removing tokens
	Access Log Confirm	Viewing screen operating logs by user
X	Status Settings	Setting/Editing names and background colors of machine status indications
	Master Registration	Registering conversion tables (masters) / Converting machine alarms and system ID codes
	Channel Settings	Setting displayed information items for each machine
	Task Reservation	Resetting the displayed total downtime / Exporting the collected data to CSV files / Setting the time interval for automatic data backup
	Task List	Viewing/Searching/Deleting tasks / Canceling scheduled tasks / Viewing logs

Compatible molding machines

Molding machine model	Basic connect (30 logging channels, moldir
SE-D, SE-DU (Not connected to iii-System)	Communication softwar
SE-D, SE-DU (Connected to iii-System)	Installed
SE-DUZ	Installed
SE-EV (Not connected to iii-System)	Communication softwar
SE-EV (Connected to iii-System)	Installed
SE-EV-A, SE-EV-S, SE-EV-A-HD, SE-EV-S-HD	Installed

Molding machines require a LAN interface in all cases.

• The Advanced connection offers a higher level of sophistication. Molding machines require additional communication software to enable all connections.



System configuration and requirements

 Tested browsers and versions: Internet Explorer 11.0/Firefox 61.0.1/Chrome 68.0
 Communications environment: A wired connection is required between the main hardware (computer) and molding machines, to ensure stable connection. Reference devices such as laptop computers and tablets may use wireless connections.
 Internet Explorer is a registered trademark of Microsoft. Firefox is a registered trademark of Mozilla. Chrome is a registered trademark of Google.

Supported languages

i-Connect supports the languages below. • English • Japanese • Simplified Chinese • Traditional Chinese • Korean

To change the display language, users need to set language on the User Management screen, then logout and log back into the application.

IMPORTANT!

Users must build and prepare the network environment for using this application. Sumitomo Heavy Industries, Ltd. bears no responsibility whatsoever for compensation and the like for damages caused to users or third parties, if the aforementioned system requirements recommended for this application are not built, the application is used improperly, or any part of this application has been modified, added to, deleted or duplicated upon using.

18

tion ng conditions, etc.)	Advanced connection (100 logging channels, peripheral equipment and sensor communications)
re to be added	
	Communication software to be added
re to be added	Communication software to be added