

Precision Regulator

Series *IR1000/2000/3000*



The addition of the small size Series IR1000 and the large size Series IR3000 provides an increased range of flow rates from approx. 200ℓ/min. to approx. 6000ℓ/min.

Precision Regulator Series **IR1000/2000/3000**

Bracket and pressure gauge can be mounted in 2 directions

(Mounting is possible in the width direction / in the height direction)

Wide range of regulated pressure in pressure range

(The maximum regulated pressure is 0.1 MPa (1.0 kgf/cm²)
at 1/20 of the rated 0.2 MPa to 0.3 MPa)

Compact and light weight

(The width is 40 mm, the height is 50 mm,
the weight is 100 g in standard)

IR 000 width 40 mm weight 100 g

(▲ width 71 mm, weight ▲ 100 g in standard)

IR 000 width 60 mm weight 140 g

(▲ width 71 mm, weight ▲ 100 g in standard)



2 air operated models

Air operated style added to series IR2000

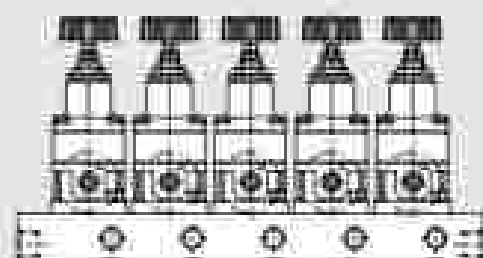


IR2120

IR3120

Manifolding is possible

(The width is 40 mm, the height is 50 mm)



Modular 40 (X120)

Pressure relief valve (PRV) with 1/2" NPT inlet and outlet

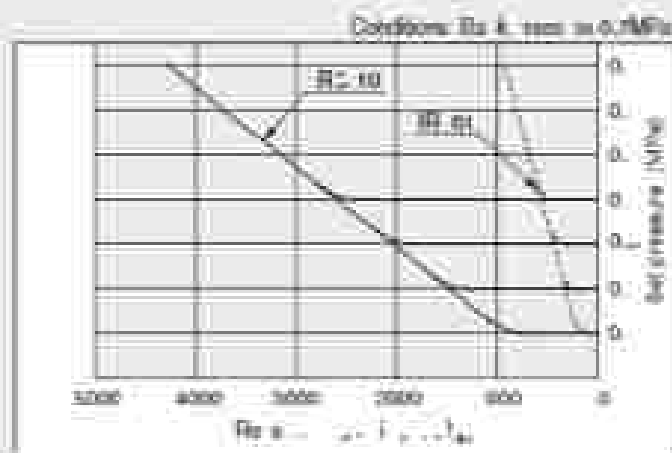
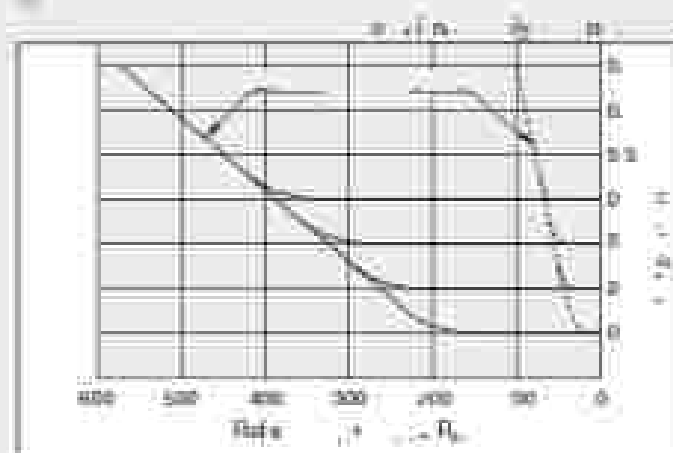


Attachments such as the 1/2" NPT inlet and outlet

Options include:
 1/2" NPT inlet and outlet
 1/2" NPT inlet and outlet
 1/2" NPT inlet and outlet

Pressure relief, low crack efficiency

Relief flow is 100% of rated flow
 (100% of rated flow)



Standard Specifications

Specifications	Model	Pressure (PSI)			Temperature (°F)	
		100	150	200	100	200
Maximum relief pressure	100	—	—	—	—	—
	150	—	—	—	—	—
	200	—	—	—	—	—
Set point	100 (100)	—	—	—	—	—
	150 (150)	—	—	—	—	—
	200 (200)	—	—	—	—	—
	250 (250)	—	—	—	—	—

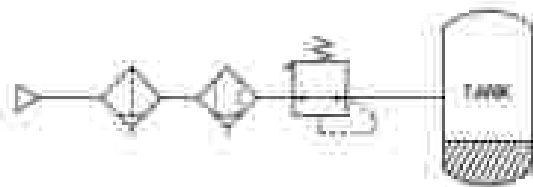
— Not available

Standard Order Specifications

Model	Pressure (PSI)	Temperature (°F)
100	100	100
150	150	150
200	200	200
250	250	250
300	300	300
350	350	350
400	400	400
450	450	450
500	500	500
550	550	550
600	600	600
650	650	650
700	700	700
750	750	750
800	800	800
850	850	850
900	900	900
950	950	950
1000	1000	1000

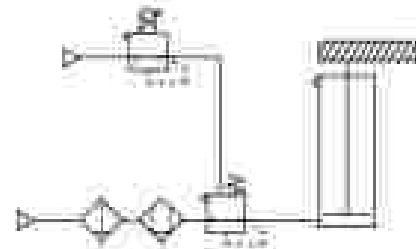
Application Examples

Constant fluid pressure



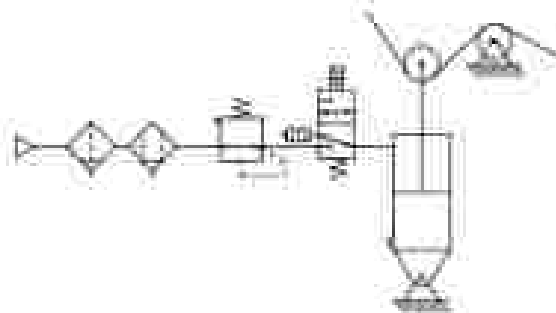
- Since there is a large effective area for supply and exhaust, pressure setting can be done easily.

Load pressure setting

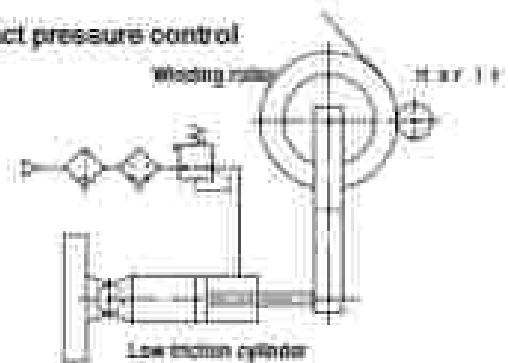


- Sets a pressure fluctuation on drive of cylinder, achieving a constant static and dynamic action.

Accurate pressure setting (0 - FS full span) sensitive thin

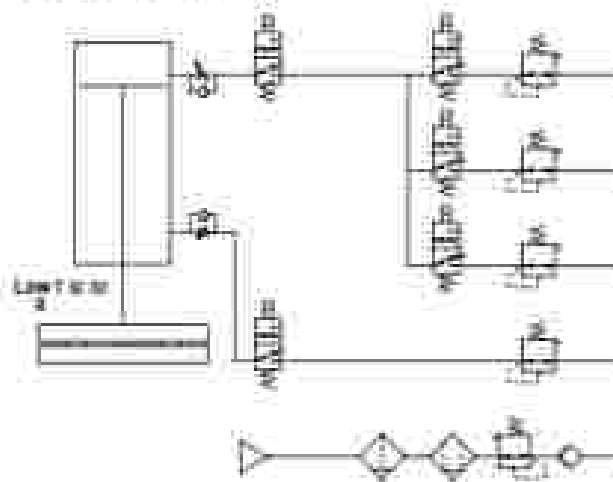


Contact pressure control

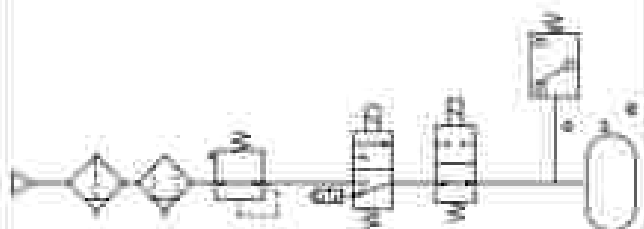


- Applies to the cylinder, achieving a constant pressure.

Multi-stage control of work piece pressing once (Wrapping machine)



Test circuit





C. I	a. I, type			Integrated I, b	
				I, c	SDI, d
Min. supply pressure	Maximum 1.0 MPa				
	Self pressure 0.05 MPa (1/2)			$f = 0.005 \text{ Pa}$	Self press. 0.05 MPa
Self pressure I, e	R400 0.005 to 0.2 MPa R301M 0.01 to 0.4 MPa R400-0 0.01 to 0.8 MPa	R2000 0.005 to 0.2 MPa R2010 0.01 to 0.4 MPa R2020 0.01 to 0.8 MPa	R3000 0.01 to 0.2 MPa R3010 0.01 to 0.4 MPa R3020 0.01 to 0.8 MPa	0.005 MPa	0.01 to 0.8 MPa
Up to p, max.	—			0.0 to 0.8 MPa	0.01 to 0.8 MPa
Seal test a, (fy)	Y, B, —, —, —, —, —, — a in G, % of I, put				
—, b, c	—			SDI 100 % of total spec.	
—, d, e, f, g	4.4 (1 in) (1/2) (1/4) (1/8) (1/16) (1/32) (1/64) (1/128) (1/256) (1/512) (1/1024) (1/2048) (1/4096) (1/8192) (1/16384) (1/32768) (1/65536) (1/131072) (1/262144) (1/524288) (1/1048576) (1/2097152) (1/4194304) (1/8388608) (1/16777216) (1/33554432) (1/67108864) (1/134217728) (1/268435456) (1/536870912) (1/1073741824) (1/2147483648) (1/4294967296) (1/8589934592) (1/17179869184) (1/34359738368) (1/68719476736) (1/137438953472) (1/274877906944) (1/549755813888) (1/1099511627776) (1/2199023255552) (1/4398046511104) (1/8796093022208) (1/17592186044416) (1/35184372088832) (1/70368744177664) (1/140737488355328) (1/281474976710656) (1/562949953421312) (1/1125899906842624) (1/2251799813685248) (1/4503599627370496) (1/9007199254740992) (1/18014398509481984) (1/36028797018963968) (1/72057594037927936) (1/144115188075855872) (1/288230376151711744) (1/576460752303423488) (1/1152921504606846976) (1/2305843009213693952) (1/4611686018427387904) (1/9223372036854775808) (1/18446744073709551616) (1/36893488147419103232) (1/73786976294838206464) (1/147573952589676412928) (1/295147905179352825856) (1/590295810358705651712) (1/1180591620717411303424) (1/2361183241434822606848) (1/4722366482869645213696) (1/9444732965739290427392) (1/18889465931478580854784) (1/37778931862957161709568) (1/75557863725914323419136) (1/151115727451828646838272) (1/302231454903657293676544) (1/604462909807314587353088) (1/1208925819614629174706176) (1/2417851639229258349412352) (1/4835703278458516698824704) (1/9671406556917033397649408) (1/19342813113834066795298816) (1/38685626227668133590597632) (1/77371252455336267181195264) (1/154742504910672534362390528) (1/309485009821345068724781056) (1/618970019642690137449562112) (1/1237940039285380274899124224) (1/2475880078570760549798248448) (1/4951760157141521099596496896) (1/9903520314283042199192993792) (1/19807040628566084398385987584) (1/39614081257132168796771975168) (1/79228162514264337593543950336) (1/158456325028528675187087900672) (1/316912650057057350374175801344) (1/633825300114114700748351602688) (1/1267650600228229401496703205376) (1/2535301200456458802993406410752) (1/5070602400912917605986812821504) (1/10141204801825835211973625643008) (1/20282409603651670423947251286016) (1/40564819207303340847894502572032) (1/81129638414606681695789005144064) (1/162259276829213363391578010288128) (1/324518553658426726783156020576256) (1/649037107316853453566312041152512) (1/1298074214633706907132624082305024) (1/2596148429267413814265248164610048) (1/5192296858534827628530496329220096) (1/10384593717069655257060992658440192) (1/20769187434139310514121985316880384) (1/41538374868278621028243970633760768) (1/83076749736557242056487941267521536) (1/166153499473114484112975882535043072) (1/332306998946228968225951765070086144) (1/664613997892457936451903530140172288) (1/1329227995784915872903807060280344576) (1/2658455991569831745807614120560689152) (1/5316911983139663491615228241121378304) (1/10633823966279326983230456482242756608) (1/21267647932558653966460912964485513216) (1/42535295865117307932921825928971026432) (1/85070591730234615865843651857942052864) (1/170141183460469231731687303715884105728) (1/340282366920938463463374607431768211456) (1/680564733841876926926749214863536422912) (1/1361129467683753853853498429727072845824) (1/2722258935367507707706996859454145691648) (1/5444517870735015415413993718908291383296) (1/10889035741470030830827987437816582766592) (1/21778071482940061661655974875633165533184) (1/43556142965880123323311949751266331066368) (1/87112285931760246646623899502532662132736) (1/1742245718635204932932477				

As a result, the company's earnings are expected to be significantly higher than those of its competitors.

IR 2000 Series Pressure Regulator Settings

Precision Regulator

Body size

1	IR0000
2	IR1000
3	IR2000

Type of setting

1	Set point (set point)
2	Set point (set point)

Regulating pressure range

1	0.000 to 0.2 MPa
2	0.01 to 0.4 MPa
3	0.01 to 0.8 MPa

Options

1	RT
2	RT

Port size

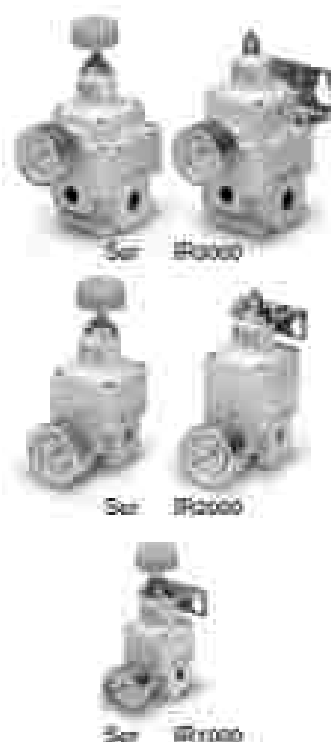
Port size	1/4"	1/2"	3/4"	1"
1	●			
2		●		
3			●	
4				●

IR 2000 Series Pressure Regulator Settings (Refer to page 9)

Port size	1/4"	1/2"	3/4"	1"
1	●			
2		●		
3			●	
4				●

- a. $\frac{1}{2}$ is the probability that the first flip is heads.
- b. Add points: $\frac{1}{2}$ for the first flip, $\frac{1}{4}$ for the second flip, $\frac{1}{8}$ for the third flip, $\frac{1}{16}$ for the fourth flip, $\frac{1}{32}$ for the fifth flip, $\frac{1}{64}$ for the sixth flip, $\frac{1}{128}$ for the seventh flip, $\frac{1}{256}$ for the eighth flip, $\frac{1}{512}$ for the ninth flip, $\frac{1}{1024}$ for the tenth flip, $\frac{1}{2048}$ for the eleventh flip, $\frac{1}{4096}$ for the twelfth flip, $\frac{1}{8192}$ for the thirteenth flip, $\frac{1}{16384}$ for the fourteenth flip, $\frac{1}{32768}$ for the fifteenth flip, $\frac{1}{65536}$ for the sixteenth flip, $\frac{1}{131072}$ for the seventeenth flip, $\frac{1}{262144}$ for the eighteenth flip, $\frac{1}{524288}$ for the nineteenth flip, $\frac{1}{1048576}$ for the twentieth flip, $\frac{1}{2097152}$ for the twenty-first flip, $\frac{1}{4194304}$ for the twenty-second flip, $\frac{1}{8388608}$ for the twenty-third flip, $\frac{1}{16777216}$ for the twenty-fourth flip, $\frac{1}{33554432}$ for the twenty-fifth flip, $\frac{1}{67108864}$ for the twenty-sixth flip, $\frac{1}{134217728}$ for the twenty-seventh flip, $\frac{1}{268435456}$ for the twenty-eighth flip, $\frac{1}{536870912}$ for the twenty-ninth flip, $\frac{1}{1073741824}$ for the thirtieth flip, $\frac{1}{2147483648}$ for the thirty-first flip, $\frac{1}{4294967296}$ for the thirty-second flip, $\frac{1}{8589934592}$ for the thirty-third flip, $\frac{1}{17179869184}$ for the thirty-fourth flip, $\frac{1}{34359738368}$ for the thirty-fifth flip, $\frac{1}{68719476736}$ for the thirty-sixth flip, $\frac{1}{137438953472}$ for the thirty-seventh flip, $\frac{1}{274877906944}$ for the thirty-eighth flip, $\frac{1}{549755813888}$ for the thirty-ninth flip, $\frac{1}{1099511627776}$ for the fortieth flip, $\frac{1}{2199023255552}$ for the forty-first flip, $\frac{1}{4398046511104}$ for the forty-second flip, $\frac{1}{8796093022208}$ for the forty-third flip, $\frac{1}{17592186044416}$ for the forty-fourth flip, $\frac{1}{35184372088832}$ for the forty-fifth flip, $\frac{1}{70368744177664}$ for the forty-sixth flip, $\frac{1}{140737488355328}$ for the forty-seventh flip, $\frac{1}{281474976710656}$ for the forty-eighth flip, $\frac{1}{562949953421312}$ for the forty-ninth flip, $\frac{1}{1125899906842624}$ for the fiftieth flip, $\frac{1}{2251799813685248}$ for the fifty-first flip, $\frac{1}{4503599627370496}$ for the fifty-second flip, $\frac{1}{9007199254740992}$ for the fifty-third flip, $\frac{1}{18014398509481984}$ for the fifty-fourth flip, $\frac{1}{36028797018963968}$ for the fifty-fifth flip, $\frac{1}{72057594037927936}$ for the fifty-sixth flip, $\frac{1}{144115188075855872}$ for the fifty-seventh flip, $\frac{1}{288230376151711744}$ for the fifty-eighth flip, $\frac{1}{576460752303423488}$ for the fifty-ninth flip, $\frac{1}{1152921504606846976}$ for the sixtieth flip, $\frac{1}{2305843009213693952}$ for the sixty-first flip, $\frac{1}{4611686018427387904}$ for the sixty-second flip, $\frac{1}{9223372036854775808}$ for the sixty-third flip, $\frac{1}{18446744073709551616}$ for the sixty-fourth flip, $\frac{1}{36893488147419103232}$ for the sixty-fifth flip, $\frac{1}{73786976294838206464}$ for the sixty-sixth flip, $\frac{1}{147573952589676412928}$ for the sixty-seventh flip, $\frac{1}{295147905179352825856}$ for the sixty-eighth flip, $\frac{1}{590295810358705651712}$ for the sixty-ninth flip, $\frac{1}{1180591620717411303424}$ for the seventieth flip, $\frac{1}{2361183241434822606848}$ for the seventy-first flip, $\frac{1}{4722366482869645213696}$ for the seventy-second flip, $\frac{1}{9444732965739290427392}$ for the seventy-third flip, $\frac{1}{18889465931478580854784}$ for the seventy-fourth flip, $\frac{1}{37778931862957161709568}$ for the seventy-fifth flip, $\frac{1}{75557863725914323419136}$ for the seventy-sixth flip, $\frac{1}{151115727451828646838272}$ for the seventy-seventh flip, $\frac{1}{302231454903657293676544}$ for the 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ninety-third flip, $\frac{1}{19807040628566084398385987584}$ for the ninety-fourth flip, $\frac{1}{39614081257132168796771975168}$ for the ninety-fifth flip, $\frac{1}{79228162514264337593543950336}$ for the ninety-sixth flip, $\frac{1}{158456325028528675187087900672}$ for the ninety-seventh flip, $\frac{1}{316912650057057350374175801344}$ for the ninety-eighth flip, $\frac{1}{633825300114114700748351602688}$ for the ninety-ninth flip, $\frac{1}{1267650600228229401496703205376}$ for the hundredth flip.
- c. Add points: $\frac{1}{2}$ for the first flip, $\frac{1}{4}$ for the second flip, $\frac{1}{8}$ for the third flip, $\frac{1}{16}$ for the fourth flip, $\frac{1}{32}$ for the fifth flip, $\frac{1}{64}$ for the sixth flip, $\frac{1}{128}$ for the seventh flip, $\frac{1}{256}$ for the eighth flip, $\frac{1}{512}$ for the ninth flip, $\frac{1}{1024}$ for the tenth flip, $\frac{1}{2048}$ for the eleventh flip, $\frac{1}{4096}$ for the twelfth flip, $\frac{1}{8192}$ for the thirteenth flip, $\frac{1}{16384}$ for the fourteenth flip, $\frac{1}{32768}$ for the fifteenth flip, $\frac{1}{65536}$ for the sixteenth flip, $\frac{1}{131072}$ for the seventeenth flip, $\frac{1}{262144}$ for the eighteenth flip, $\frac{1}{524288}$ for the nineteenth flip, $\frac{1}{1048576}$ for the twentieth flip, $\frac{1}{2097152}$ for the twenty-first flip, $\frac{1}{4194304}$ for the twenty-second flip, $\frac{1}{8388608}$ for the twenty-third flip, $\frac{1}{16777216}$ for the twenty-fourth flip, $\frac{1}{33554432}$ for the twenty-fifth flip, $\frac{1}{67108864}$ for the twenty-sixth flip, $\frac{1}{134217728}$ for the twenty-seventh flip, $\frac{1}{268435456}$ for the twenty-eighth flip, $\frac{1}{536870912}$ for the twenty-ninth flip, $\frac{1}{1073741824}$ for the thirtieth flip, $\frac{1}{2147483648}$ for the thirty-first flip, $\frac{1}{4294967296}$ for the thirty-second flip, $\frac{1}{8589934592}$ for the thirty-third flip, $\frac{1}{17179869184}$ for the thirty-fourth flip, $\frac{1}{34359738368}$ for the thirty-fifth flip, $\frac{1}{68719476736}$ for the thirty-sixth flip, $\frac{1}{137438953472}$ for the thirty-seventh flip, $\frac{1}{27$

Series IR1000/2000/3000



Specification Combinations

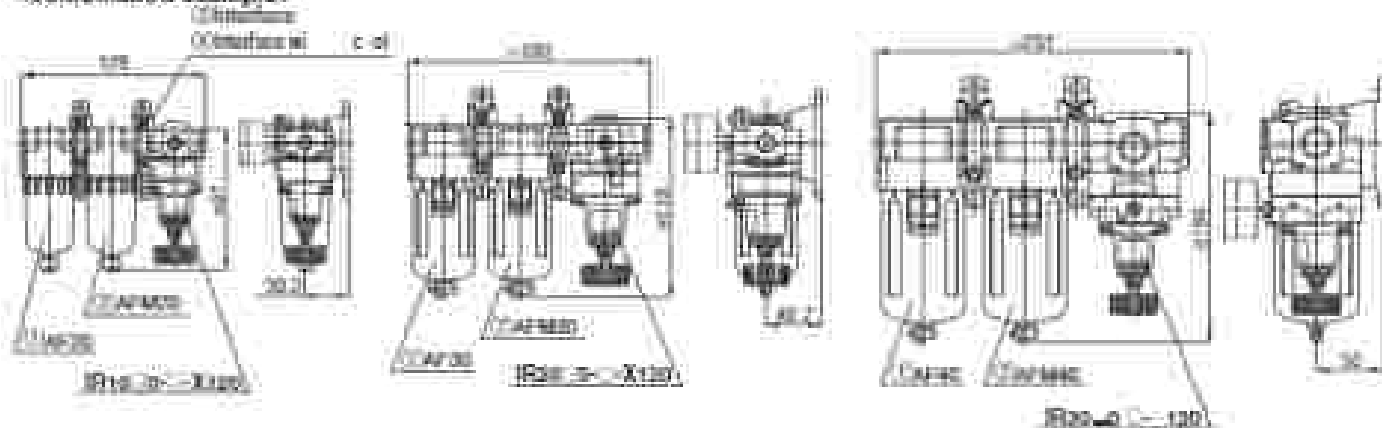
		C. Item			
		IR 1010 IR 1010	IR 1010 IR 1010	IR 1010 IR 1010	IR 1010 IR 1010
H. Item	Set pressure max. 0.2MPa				
	Set pressure max. 0.4MPa				
	Set pressure max. 0.6MPa				
	Co.				
	Co.				
	Connection Rp(PT) 1/2				
M. Item	Pressure 0.1 MPa				
	Pressure 0.1 MPa				
N. Item	Connection PT1/2				
	Connection NPT1/2				
	Connection NPT3/8				
	Connection NPT1/2				
	Connection 1/2				
	Connection 1/4				
	Connection GPP 1/2				
	Connection GPP 1/2				

FIGURE 1. Colors and Accessory Combinations

Example	Applicable model		
	Fig. 2-1-1 X120	Fig. 2-1-2 X120	Fig. 2-1-3 X120
1. α Unit	AF-1	AF-1	AF-1
2. Mist separator	AF-100	AF-100	FM-100
3. Intertice	00	Y200	600
4. Intertice (1.5 in. dia)	Y200	00	600

Next is the need to select good sets of $\{x_i\}$. It is the problem of choice of a model or connection, based either by applying statistical and information methods.

–Combination example:



Accessory (.. @ ..) ..

[illegible]

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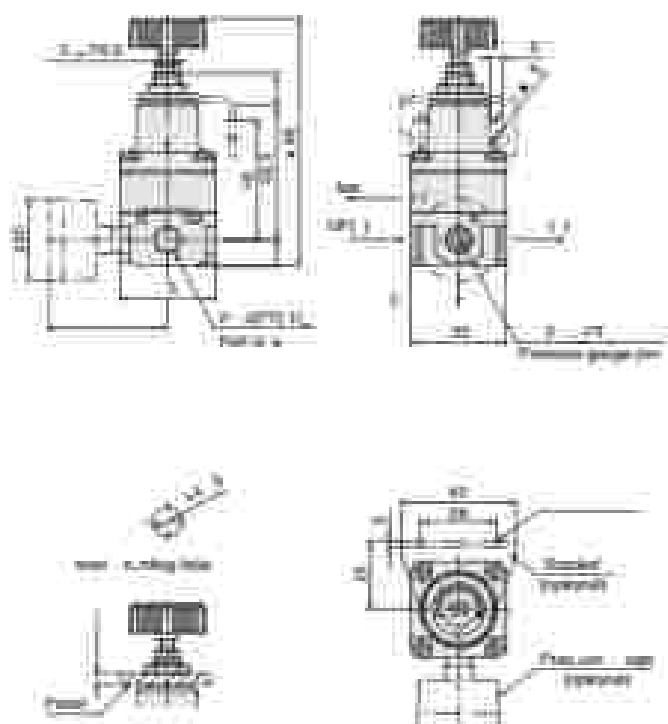
1995-1996

^a 300 mg for the first 4 days and 600 mg for the remainder. 100 mg reduces the effect of the first dose at monthly intervals. Screen.

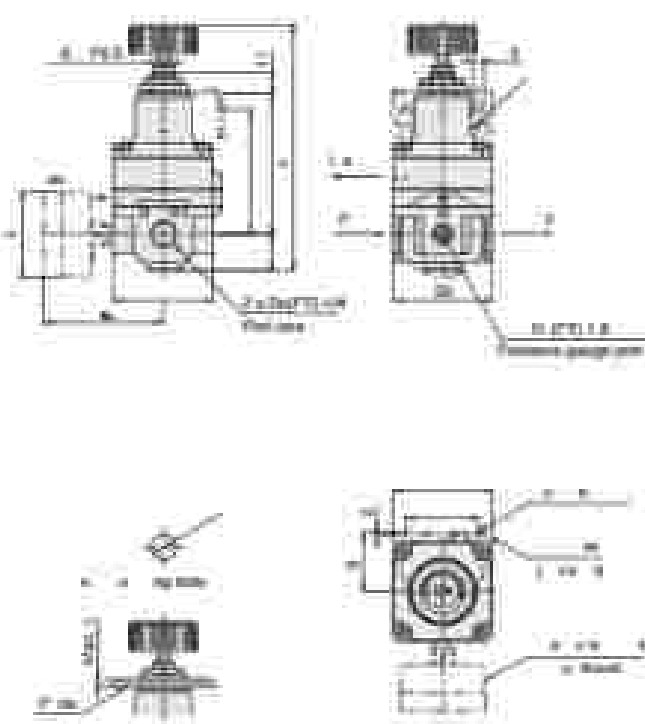
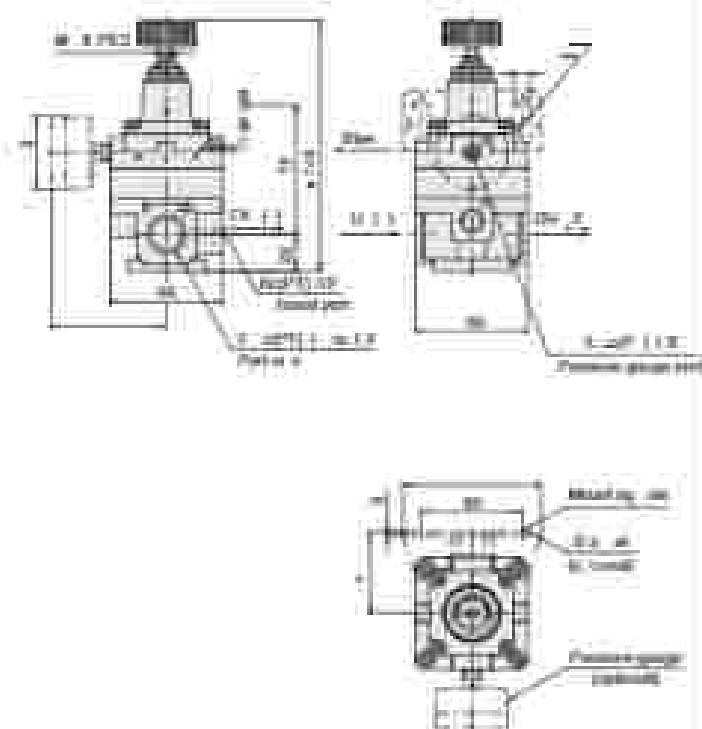
Series IR1000/2000/3000

Dimensions

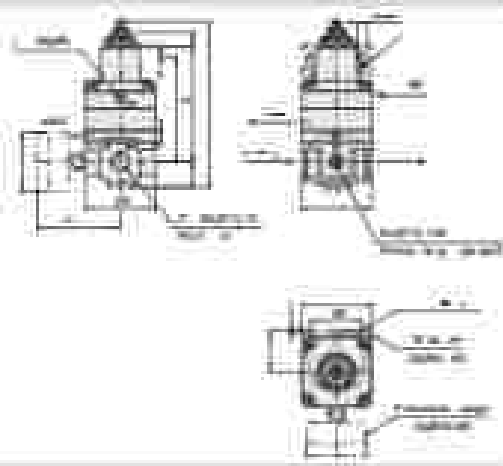
IR 0000-010



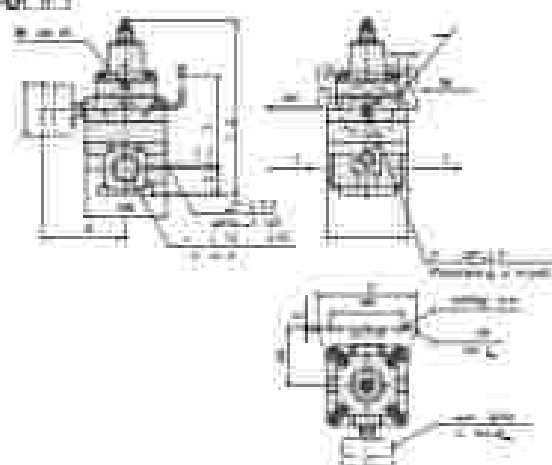
IR2017-0217

**IRINDO-0**

MR2120 02

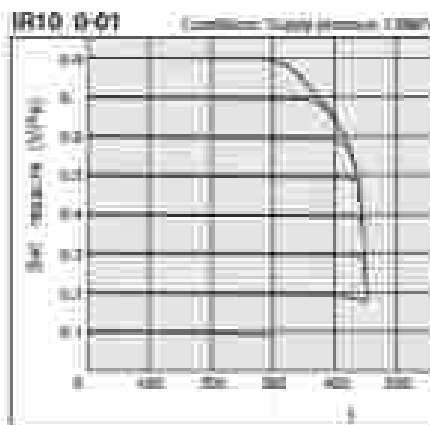
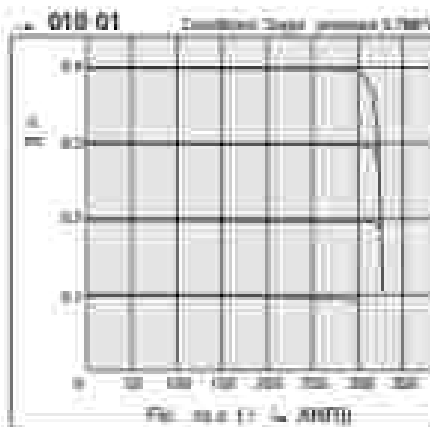
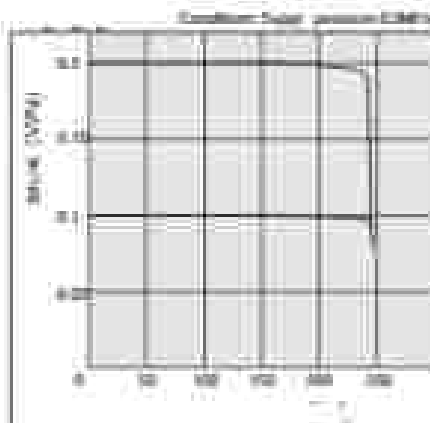


IR 120-0113

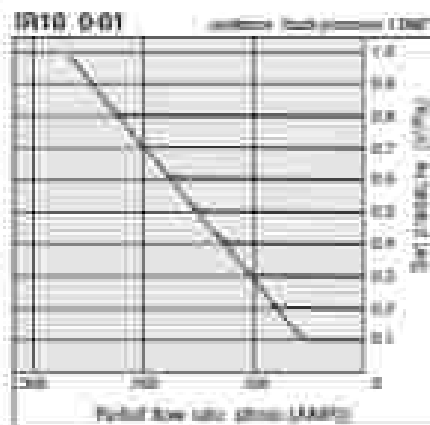
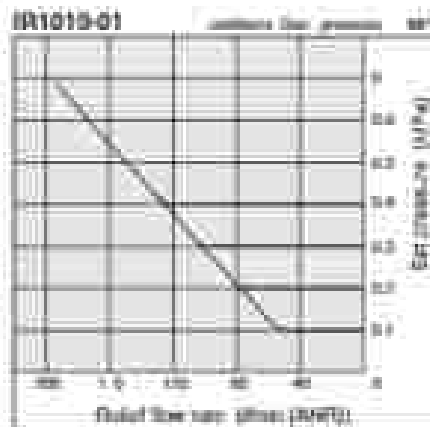
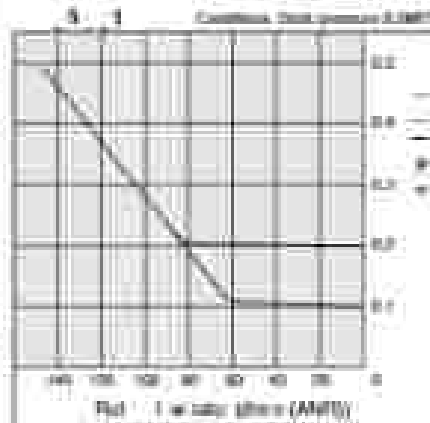


Flow characteristics

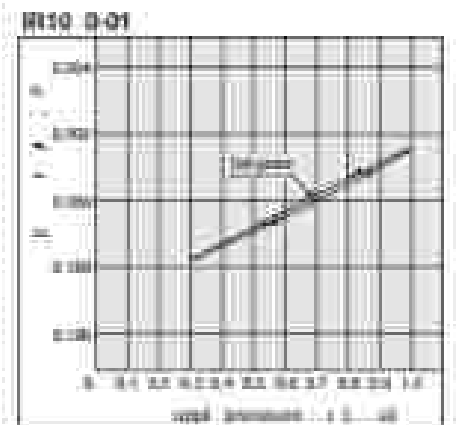
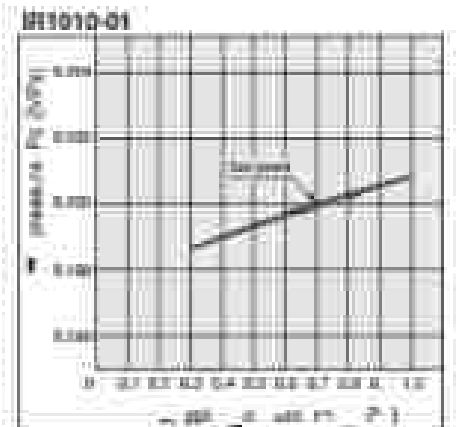
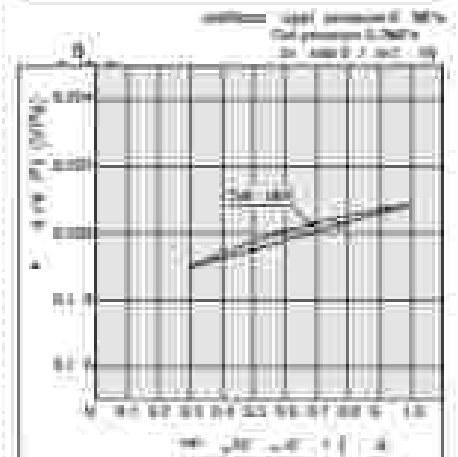
• Testing conditions: $\omega = 1$ $\mu = 1$



Relief characteristics



Pressure characteristics

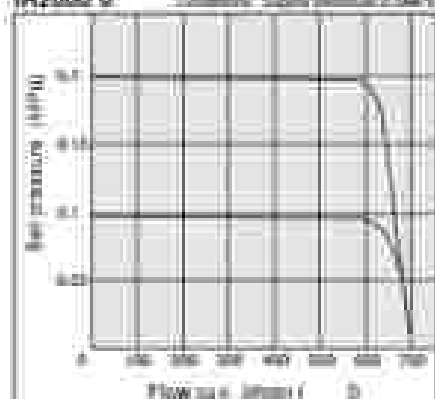


Series IR1000/2000/3000

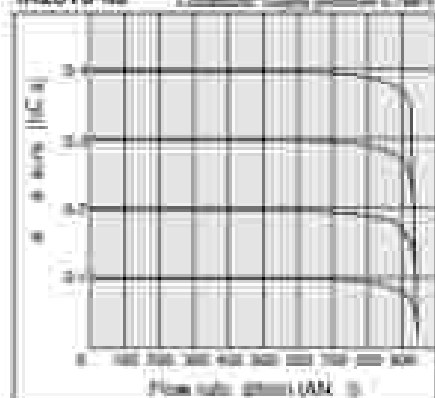
Flow characteristics

* Set P₁ = 0.5 MPa (5 bar) unless otherwise specified

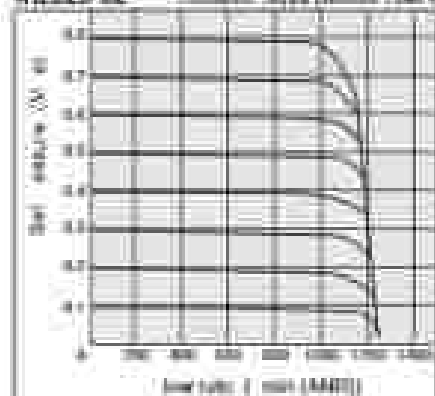
IR2000-02 Conditions: Supply pressure 0.5 MPa



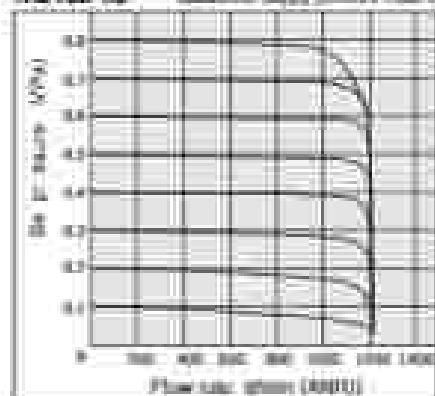
IR2010-02 Conditions: Supply pressure 0.5 MPa



IR2020-02 Conditions: Supply pressure 0.5 MPa

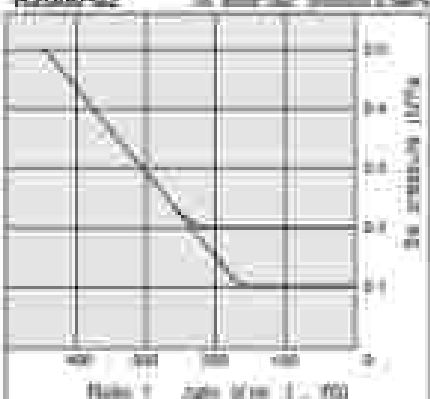


IR2120-02 Conditions: Supply pressure 0.5 MPa

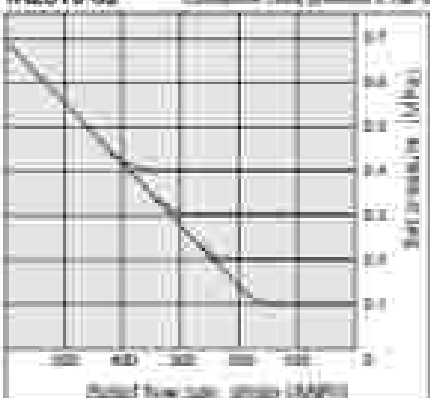


Relief characteristics

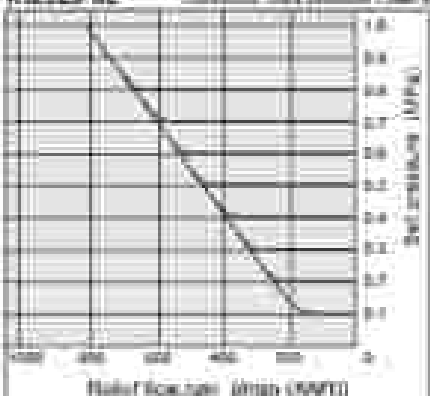
IR2000-02 Conditions: Set pressure 0.5 MPa



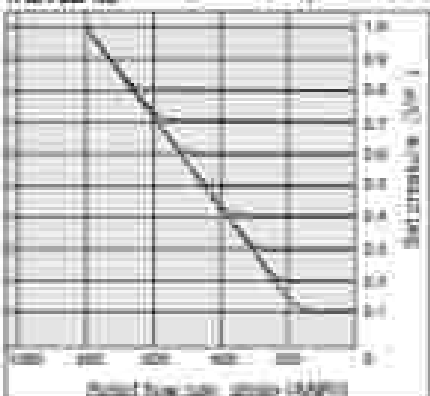
IR2010-02 Conditions: Set pressure 0.5 MPa



IR2020-02 Conditions: Set pressure 0.5 MPa

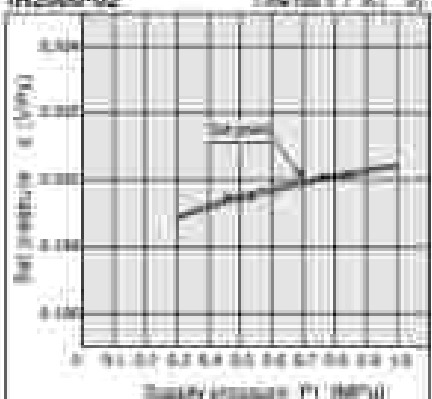


IR2120-02 Conditions: Set pressure 0.5 MPa

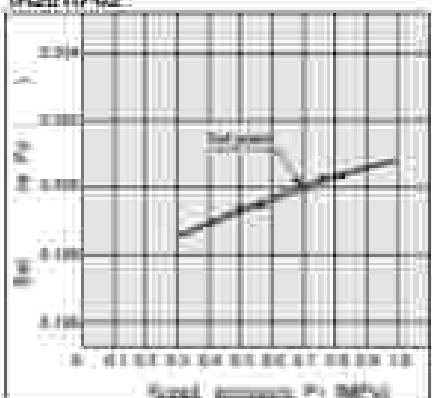


Pressure characteristics

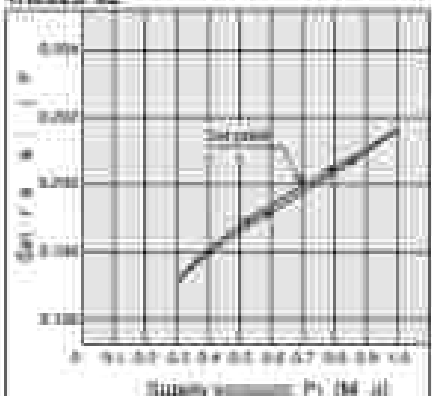
Conditions: Supply pressure 0.5 MPa
Set pressure 0.5 MPa
Flow rate 0.1 g/min



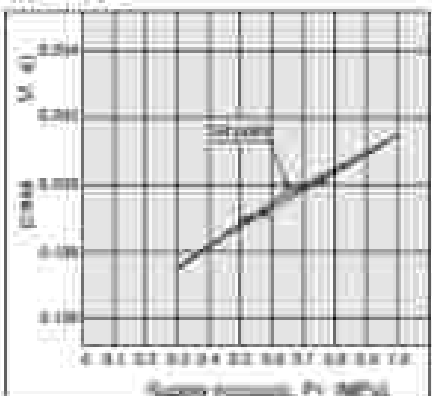
IR2010-02



IR2020-02

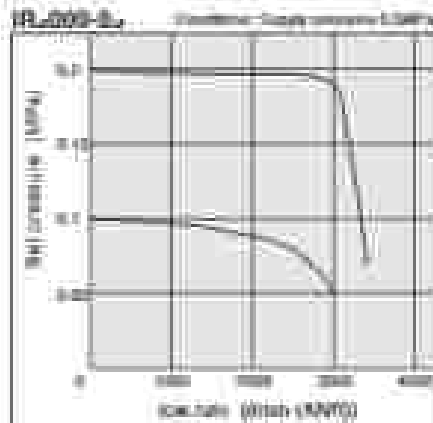


IR2120-02

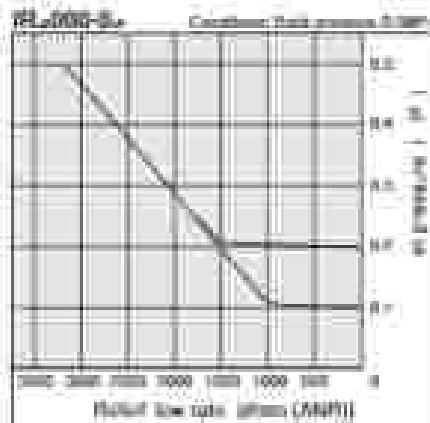


Flow characteristics

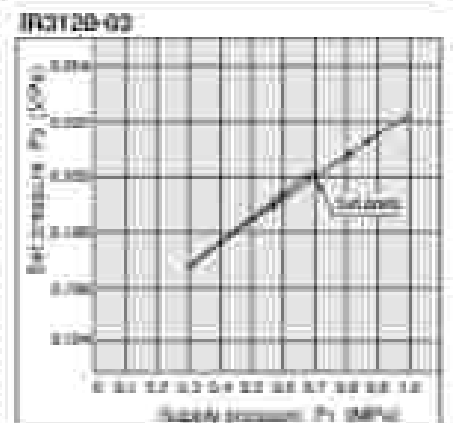
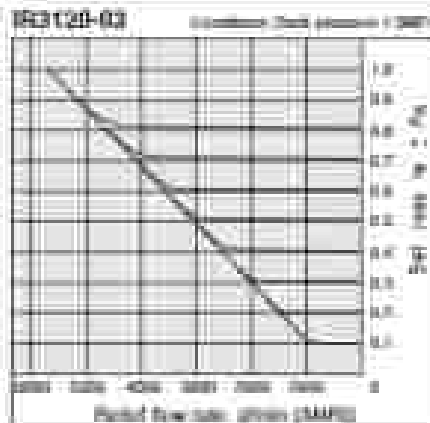
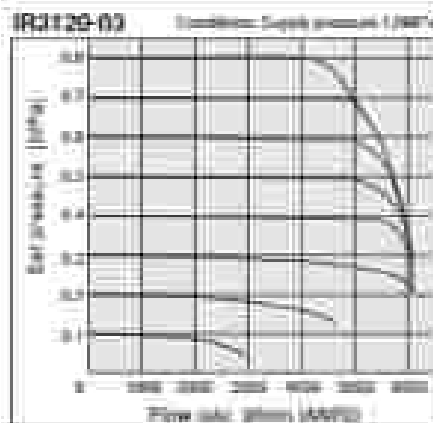
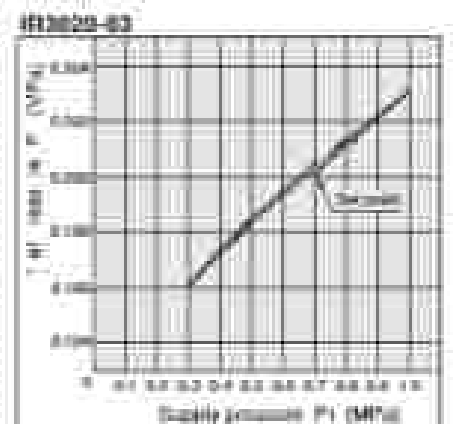
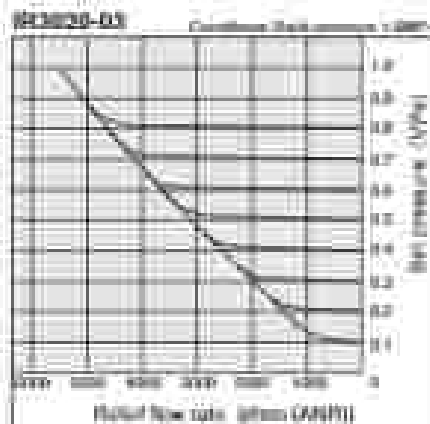
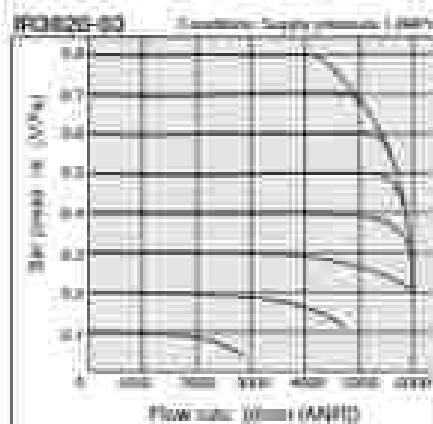
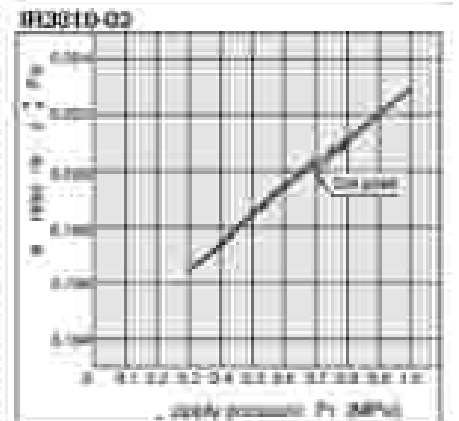
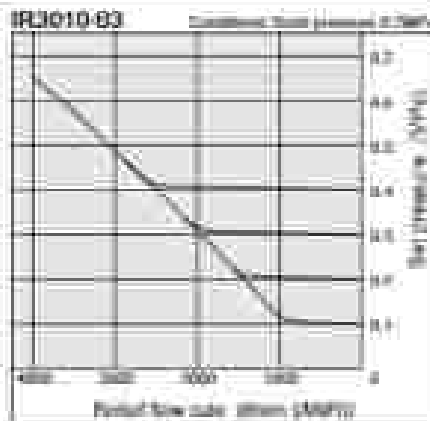
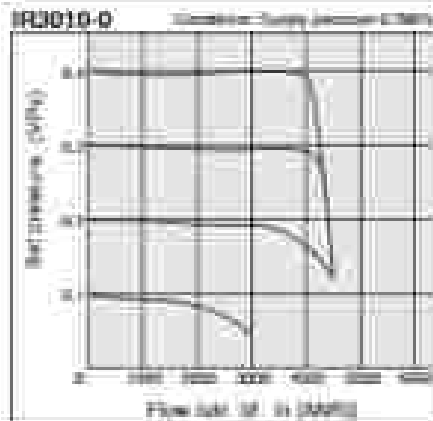
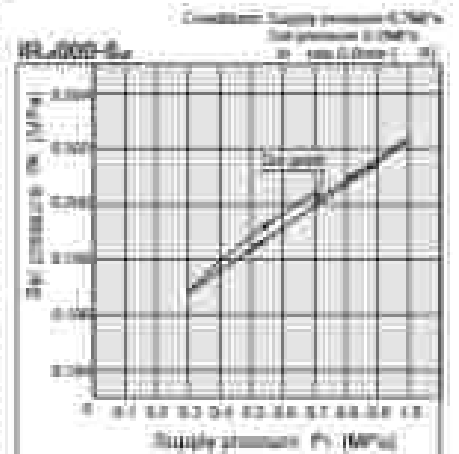
* Testing conditions: air at 20°C



Leak characteristics



Pressure characteristics



1. Clean Room

• **Classroom activities and assignments:**

Cloud theory	see
Cloud port	see <i>application data (AD) port</i>
End port	see <i>application data (AD) port</i>
Grassie	Fluorinated olefin

2

Continued from page 10

3. **Orange Flouissant**

Q *Can you tell me more about the new book?*

2 For High and Low Temperature Environments

Figure 1 *Flowchart illustrating the study design and participant flow.*

Exponential	T		
Environment(s)	2.5% NaCl, 20% urea, 0.5% DMSO	F	1.0
Amplitude for μ in 1 sec	5 to 100°C		0.5
Derivative	100°C		0.5

5 Non-Gravimetric

1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023, 2024, 2025, 2026, 2027, 2028, 2029, 2030, 2031, 2032, 2033, 2034, 2035, 2036, 2037, 2038, 2039, 2040, 2041, 2042, 2043, 2044, 2045, 2046, 2047, 2048, 2049, 2050, 2051, 2052, 2053, 2054, 2055, 2056, 2057, 2058, 2059, 2060, 2061, 2062, 2063, 2064, 2065, 2066, 2067, 2068, 2069, 2070, 2071, 2072, 2073, 2074, 2075, 2076, 2077, 2078, 2079, 2080, 2081, 2082, 2083, 2084, 2085, 2086, 2087, 2088, 2089, 2090, 2091, 2092, 2093, 2094, 2095, 2096, 2097, 2098, 2099, 2100, 2101, 2102, 2103, 2104, 2105, 2106, 2107, 2108, 2109, 2110, 2111, 2112, 2113, 2114, 2115, 2116, 2117, 2118, 2119, 2120, 2121, 2122, 2123, 2124, 2125, 2126, 2127, 2128, 2129, 2130, 2131, 2132, 2133, 2134, 2135, 2136, 2137, 2138, 2139, 2140, 2141, 2142, 2143, 2144, 2145, 2146, 2147, 2148, 2149, 2150, 2151, 2152, 2153, 2154, 2155, 2156, 2157, 2158, 2159, 2160, 2161, 2162, 2163, 2164, 2165, 2166, 2167, 2168, 2169, 2170, 2171, 2172, 2173, 2174, 2175, 2176, 2177, 2178, 2179, 2180, 2181, 2182, 2183, 2184, 2185, 2186, 2187, 2188, 2189, 2190, 2191, 2192, 2193, 2194, 2195, 2196, 2197, 2198, 2199, 2200, 2201, 2202, 2203, 2204, 2205, 2206, 2207, 2208, 2209, 2210, 2211, 2212, 2213, 2214, 2215, 2216, 2217, 2218, 2219, 2220, 2221, 2222, 2223, 2224, 2225, 2226, 2227, 2228, 2229, 2230, 2231, 2232, 2233, 2234, 2235, 2236, 2237, 2238, 2239, 2240, 2241, 2242, 2243, 2244, 2245, 2246, 2247, 2248, 2249, 2250, 2251, 2252, 2253, 2254, 2255, 2256, 2257, 2258, 2259, 2260, 2261, 2262, 2263, 2264, 2265, 2266, 2267, 2268, 2269, 2270, 2271, 2272, 2273, 2274, 2275, 2276, 2277, 2278, 2279, 2280, 2281, 2282, 2283, 2284, 2285, 2286, 2287, 2288, 2289, 2290, 2291, 2292, 2293, 2294, 2295, 2296, 2297, 2298, 2299, 2300, 2301, 2302, 2303, 2304, 2305, 2306, 2307, 2308, 2309, 2310, 2311, 2312, 2313, 2314, 2315, 2316, 2317, 2318, 2319, 2320, 2321, 2322, 2323, 2324, 2325, 2326, 2327, 2328, 2329, 2330, 2331, 2332, 2333, 2334, 2335, 2336, 2337, 2338, 2339, 2340, 2341, 2342, 2343, 2344, 2345, 2346, 2347, 2348, 2349, 2350, 2351, 2352, 2353, 2354, 2355, 2356, 2357, 2358, 2359, 2360, 2361, 2362, 2363, 2364, 2365, 2366, 2367, 2368, 2369, 2370, 2371, 2372, 2373, 2374, 2375, 2376, 2377, 2378, 2379, 2380, 2381, 2382, 2383, 2384, 2385, 2386, 2387, 2388, 2389, 2390, 2391, 2392, 2393, 2394, 2395, 2396, 2397, 2398, 2399, 2400, 2401, 2402, 2403, 2404, 2405, 2406, 2407, 2408, 2409, 2410, 2411, 2412, 2413, 2414, 2415, 2416, 2417, 2418, 2419, 2420, 2421, 2422, 2423, 2424, 2425, 2426, 2427, 2428, 2429, 2430, 2431, 2432, 2433, 2434, 2435, 2436, 2437, 2438, 2439, 2440, 2441, 2442, 2443, 2444, 2445, 2446, 2447, 2448, 2449, 2450, 2451, 2452, 2453, 2454, 2455, 2456, 2457, 2458, 2459, 2460, 2461, 2462, 2463, 2464, 2465, 2466, 2467, 2468, 2469, 2470, 2471, 2472, 2473, 2474, 2475, 2476, 2477, 2478, 2479, 2480, 2481, 2482, 2483, 2484, 2485, 2486, 2487, 2488, 2489, 2490, 2491, 2492, 2493, 2494, 2495, 2496, 2497, 2498, 2499, 2500, 2501, 2502, 2503, 2504, 2505, 2506, 2507, 2508, 2509, 2510, 2511, 2512, 2513, 2514, 2515, 2516, 2517, 2518, 2519, 2520, 2521, 2522, 2523, 2524, 2525, 2526, 2527, 2528, 2529, 2530, 2531, 2532, 2533, 2534, 2535, 2536, 2537, 2538, 2539, 2540, 2541, 2542, 2543, 2544, 2545, 2546, 2547, 2548, 2549, 2550, 2551, 2552, 2553, 2554, 2555, 2556, 2557, 2558, 2559, 2560, 2561, 2562, 2563, 2564, 2565, 2566, 2567, 2568, 2569, 2570, 2571, 2572, 2573, 2574, 2575, 2576, 2577, 2578, 2579, 2580, 2581, 2582, 2583, 2584, 2585, 2586, 2587, 2588, 2589, 2590, 2591, 2592, 2593, 2594, 2595, 2596, 2597, 2598, 2599, 2600, 2601, 2602, 2603, 2604, 2605, 2606, 2607, 2608, 2609, 2610, 2611, 2612, 2613, 2614, 2615, 2616, 2617, 2618, 2619, 2620, 2621, 2622, 2623, 2624, 2625, 2626, 2627, 2628, 2629, 2630, 2631, 2632, 2633, 2634, 2635, 2636, 2637, 2638, 2639, 2640, 2641, 2642, 2643, 2644, 2645, 2646, 2647, 2648, 2649, 2650, 2651, 2652, 2653, 2654, 2655, 2656, 2657, 2658, 2659, 2660, 2661, 2662, 2663, 2664, 2665, 2666, 2667, 2668, 2669, 2670, 2671, 2672, 2673, 2674, 2675, 2676, 2677, 2678, 2679, 26

6 With Diastolic Pressure Switch

[illegible]

Stand d n -

1) Input for signal "C"

2) Input for signal "C"

11th digital pressure switch

Switch specifications

Symbol	Signal specifications
A	Open collector 1 output
B	Open collector 2 output
C	Open collector 3 output
D	Open collector 4 output
E	Open collector 5 output
F	Open collector 6 output
G	Open collector 7 output
H	Open collector 8 output
I	Open collector 9 output
J	Open collector 10 output
K	Open collector 11 output
L	Open collector 12 output
M	Open collector 13 output
N	Open collector 14 output
O	Open collector 15 output
P	Open collector 16 output
Q	Open collector 17 output
R	Open collector 18 output
S	Open collector 19 output
T	Open collector 20 output
U	Open collector 21 output
V	Open collector 22 output
W	Open collector 23 output
X	Open collector 24 output
Y	Open collector 25 output
Z	Open collector 26 output
AA	Open collector 27 output
AB	Open collector 28 output
AC	Open collector 29 output
AD	Open collector 30 output
AE	Open collector 31 output
AF	Open collector 32 output
AG	Open collector 33 output
AH	Open collector 34 output
AI	Open collector 35 output
AJ	Open collector 36 output
AK	Open collector 37 output
AL	Open collector 38 output
AM	Open collector 39 output
AN	Open collector 40 output
AO	Open collector 41 output
AP	Open collector 42 output
AQ	Open collector 43 output
AR	Open collector 44 output
AS	Open collector 45 output
AT	Open collector 46 output
AU	Open collector 47 output
AV	Open collector 48 output
AW	Open collector 49 output
AX	Open collector 50 output
AY	Open collector 51 output
AZ	Open collector 52 output
BA	Open collector 53 output
BB	Open collector 54 output
BC	Open collector 55 output
BD	Open collector 56 output
BE	Open collector 57 output
BF	Open collector 58 output
BG	Open collector 59 output
BH	Open collector 60 output
BI	Open collector 61 output
BJ	Open collector 62 output
BK	Open collector 63 output
BL	Open collector 64 output
BM	Open collector 65 output
BN	Open collector 66 output
BO	Open collector 67 output
BP	Open collector 68 output
BQ	Open collector 69 output
BR	Open collector 70 output
BS	Open collector 71 output
BT	Open collector 72 output
BU	Open collector 73 output
BV	Open collector 74 output
BW	Open collector 75 output
BX	Open collector 76 output
BY	Open collector 77 output
BZ	Open collector 78 output
CA	Open collector 79 output
CB	Open collector 80 output
CC	Open collector 81 output
CD	Open collector 82 output
CE	Open collector 83 output
CF	Open collector 84 output
CG	Open collector 85 output
CH	Open collector 86 output
CI	Open collector 87 output
CJ	Open collector 88 output
CK	Open collector 89 output
CL	Open collector 90 output
CM	Open collector 91 output
CN	Open collector 92 output
CO	Open collector 93 output
CP	Open collector 94 output
CQ	Open collector 95 output
CR	Open collector 96 output
CS	Open collector 97 output
CT	Open collector 98 output
CU	Open collector 99 output
CV	Open collector 100 output
CW	Open collector 101 output
CX	Open collector 102 output
CY	Open collector 103 output
CZ	Open collector 104 output
DA	Open collector 105 output
DB	Open collector 106 output
DC	Open collector 107 output
DD	Open collector 108 output
DE	Open collector 109 output
DF	Open collector 110 output
DG	Open collector 111 output
DH	Open collector 112 output
DI	Open collector 113 output
DJ	Open collector 114 output
DK	Open collector 115 output
DL	Open collector 116 output
DM	Open collector 117 output
DN	Open collector 118 output
DO	Open collector 119 output
DP	Open collector 120 output
DQ	Open collector 121 output
DR	Open collector 122 output
DS	Open collector 123 output
DT	Open collector 124 output
DU	Open collector 125 output
DV	Open collector 126 output
DW	Open collector 127 output
DX	Open collector 128 output
DY	Open collector 129 output
DZ	Open collector 130 output
EA	Open collector 131 output
EB	Open collector 132 output
EC	Open collector 133 output
ED	Open collector 134 output
EE	Open collector 135 output
EF	Open collector 136 output
EG	Open collector 137 output
EH	Open collector 138 output
EI	Open collector 139 output
EJ	Open collector 140 output
EK	Open collector 141 output
EL	Open collector 142 output
EM	Open collector 143 output
EN	Open collector 144 output
EO	Open collector 145 output
EP	Open collector 146 output
EQ	Open collector 147 output
ER	Open collector 148 output
ES	Open collector 149 output

5. *Reflections (Concepts, Processes and Skills)* 10

[illegible][illegible]

Statistical Analysis

Station:	2 to stations
Armenia -	1 1000-14 1 1000-13
Armenia -	1 1000-15 1 1000-14
Armenia -	1 1000-16 1 1000-15
Armenia -	1 1000-17 1 1000-16
Armenia -	1 1000-18 1 1000-17
Armenia -	1 1000-19 1 1000-18
Armenia -	1 1000-20 1 1000-19
Armenia -	1 1000-21 1 1000-20
Armenia -	1 1000-22 1 1000-21
Armenia -	1 1000-23 1 1000-22
Armenia -	1 1000-24 1 1000-23
Armenia -	1 1000-25 1 1000-24
Armenia -	1 1000-26 1 1000-25
Armenia -	1 1000-27 1 1000-26
Armenia -	1 1000-28 1 1000-27
Armenia -	1 1000-29 1 1000-28
Armenia -	1 1000-30 1 1000-29
Armenia -	1 1000-31 1 1000-30
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Armenia -	1 1000-33 1 1000-32
Armenia -	1 1000-34 1 1000-33
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Armenia -	1 1000-37 1 1000-36
Armenia -	1 1000-38 1 1000-37
Armenia -	1 1000-39 1 1000-38
Armenia -	1 1000-40 1 1000-39
Armenia -	1 1000-41 1 1000-40
Armenia -	1 1000-42 1 1000-41
Armenia -	1 1000-43 1 1000-42
Armenia -	1 1000-44 1 1000-43
Armenia -	1 1000-45 1 1000-44
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Item 7: When comparing with a different test pressure, the modified viewing (MV) ports from Item 1, the low pressure range is installed on the left side and the pressure range is on the right side in case of the sample 7. Also a modified, sections 1 and 7 are of 0.2 MPa setting, sections 2 and 4 are of 0.1 MPa setting, and sections 3, 5, 6, and 8 are of 0.5 MPa setting.

Name: _____ Phone: _____



Series IR1000/2000/3000 Specific Product Precautions

Please read carefully and follow the instructions.

For top, front and side views for safety installation and operation instructions on the products mentioned in this catalog, see the following pages.

Air Supply



Precautions for Air Supply

1. If the supply pressure line contains drainage or dirt, etc., the filtered throttle may become clogged, leading to malfunction, and therefore, in addition to an air filter, use a series of 3-stage series to use the filter for SMC series (M, F, M).

For the correct installation of the air supply, see the following pages.

1. Do not use a lubricator on the supply side of the regulator as this will positively cause the fixed throttle to become clogged and lead to malfunction. If lubrication is required for terminal devices, connect a lubricator on the output side of the regulator.

Maintenance



Warning

1. When the valve guide (refer to construction drawing on p.16-17) is to be removed during maintenance, first reduce the set pressure to 0 and completely shut off the supply pressure. When a pressure gauge is to be mounted, remove the plug after reducing the set pressure to 0.

Precautions for IR10



Warning

1. When remounting the valve guide after removing it for maintenance, use a tightening torque of no more than 0.6Nm. Since the valve guide on this product is made of resin, there is a danger of damage if tightened with a torque exceeding the prescribed value.

Operation



Caution

1. Do not use a precision regulator outside the range of its specifications as this can cause failure. (Refer to specifications.)
2. When mounting is performed, make connections while confirming port indications.

Operation



Caution

1. If a directional switching valve (solenoid valve, mechanical valve, etc.) is mounted on the supply side of the regulator and repeatedly switched ON and OFF, wear of the nozzle/flapper section will be accelerated and a discrepancy in the setting value may occur. Therefore, avoid using a directional switching valve on the supply side. In the event a directional switching valve will be used, install it on the output side of the regulator.
2. Air is normally discharged from the bleed port (the hole on the side of the body's mid-section). This is a necessary consumption of air based on the construction of the precision regulator, and is not an abnormality.
3. Be sure to tighten the lock nut after pressure adjustment.

Precautions for IR3000, IR3120 only



Caution

1. If the supply pressure is relatively high (approx. 0.5MPa or more), the set pressure is low (approx. 0.1MPa or less), and when operated with the output side released to the atmosphere, there may be pulsations in the setting side pressure. In this kind of situation, operate with the supply pressure reduced as much as possible, or increase the set pressure somewhat and restrict the output line (add and adjust a stop valve, etc.).
2. If the capacity of the output side is large, and when used for the purpose of a relief function, the exhaust sound will be loud when being relieved. Therefore, operate with a silencer (SMC Series AH) mounted on the exhaust port (PT port). The connection is NPT 1/2.

Precautions for IR2120, IR3120 (air-operated style) only



Caution

1. Since the output of types IR2120 and IR3120 is the same pressure as the input signal pressure, select a type of regulator (general purpose or precision type) for input signal pressure adjustment according to the application.
2. The screw on the topmost section is a zero point adjustment screw which is locked at the factory and requires no adjustment for operation.



Series IR1000/2000/3000 Precision Regulator Instructions

Be sure to read before handling

Refer to p. 28 and 27 for Safety Instructions and common precautions on the products mentioned in this catalogue.

Piping

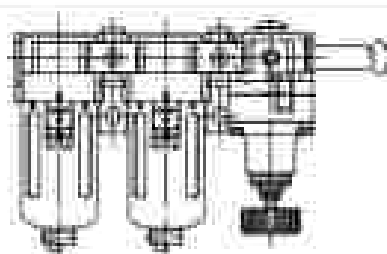
Warning

1. Screw piping together with the recommended proper torque while holding the side with female threads.

Excessive tightening will result in the torque being insufficient. If the recommended torque is excessive, further use of the side (in the female threads) is not held while tightening, or excessive force will be applied directly to piping, etc., etc., causing damage or other problems.

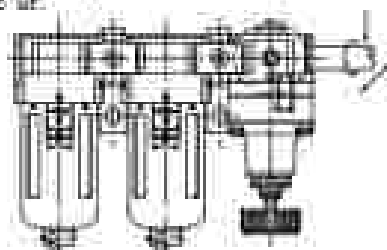
Recommended proper torque

Size	Material	Recommended proper torque
1/2"	2 to 1	2 to 4
3/4"	2 to 1	2 to 4



2. Do not allow twisting or bending moment to be applied other than the weight of the equipment itself.

Use a separate support for external piping to avoid damage and otherwise do not.



3. Since excessive moment loads and the propagation of vibrations, etc. can easily result from inflexible piping made of steel, etc., avoid these problems by using flexible tubing for intermediate connections.

Piping

Caution

1. Preparation before piping

Before piping is connected, it should be thoroughly blown out with air flushing, or washed to remove cutting chips, cutting oil and other debris from inside the pipe.

2. Wrapping of pipe tape

When connecting pipes and fittings, etc., be sure that cutting chips from the pipe threads and sealing material do not get inside.

Further, when pipe tape is used, leave it to thread edges exposed at the end of the pipe fitting.



Operation

Warning

1. Do not operate in locations having an atmosphere of corrosive gases, chemicals, sea water, water or steam, or where there will be contact with the same.
2. Do not operate in locations where vibration or impact occurs.
3. In locations which receive direct sunlight, provide a protective cover, etc.
4. In locations near heat sources, block off any radiated heat.
5. In locations where there is contact with spatter from water, oil or solder, etc., implement suitable protective measures.

Air prep

Warning

1. These products are designed for use with compressed air. Contact SMC if any other fluid will be used.
2. Do not use compressed air which includes chemicals, synthetic oils containing organic solvents, salt, or corrosive gases, etc., as this can cause damage or malfunction.
3. If drainage is not removed from air filters and mist separators, it can flow out to the downstream side and lead to the malfunction of pneumatic equipment.

In cases where the management of drainage removal will be difficult, the use of filters with auto drains is recommended.

▲ Safety Instructions

These safety instructions are intended to prevent hazardous situations and to prevent personal damage. These instructions include the use of personal guard with the device. The instructions are in English, French, German, Italian, Spanish, and Chinese. The most important notes for safety and must be followed in addition to international standards, and other safety regulations.

Abstract

© 1998 Blackwell Science Ltd, *Journal of Internal Medicine* 243: 341–347

Warning

Mr. _____ was interviewed and with a question to ask him, he was provided a list of 10 questions.

A Danger

Greiner features a barrel with a 16-foot-dia. wheel, 4 feet apart, with steel in front of rubber tires.

[illegible]

• If personnel will be required to handle, use or operate the machinery and equipment

The product operator here may become useful if handled correctly. The lowering, raising and multiplication of numbers or a square including an operator need to be performed by an operator who is appropriately trained and is competent.

...a not a car or other product and
...a not a car or other product and

ii) The importance and robustness of teaching programs should only be determined after measures to protect privacy of the donor subjects have been confirmed.

g. Where the product is to be removed, ensure that the safety measures are maintained during all dismantling and the power from any appropriate source is cut and locked and maintain the specific product procedures of all relevant regulations and standards.

once machinery is installed, it is a matter of power
operated maintenance.

intended for use as a special condition of safety measure if the product is to be used in any of the latter circumstances.

complex and innovative nature of the past, particularly in its
relationship with a state of mind in the past.

[illegible]

• a reputation which could have negative effects on people, property, or animals created around water systems.

a. (that is an abstract noun) which implies the presence of people (units) to provide before by using a mechanical process, function, and potential over a certain time duration.

7. The product is fine, suited for use to make, fast, etc. and, attract.

Extended warranty and Disclaimer/Compliance Requirements

[illegible]

Limited warranty and Disclaimer

1. The warranty period on the product is _____ and it is set to be _____ years after the product is sold.

1. *Chlorophyll a* (Chl *a*)

ag - apart from within the warranty period which is usually a
10 years. It is a good idea to check the terms and conditions of the warranty.

1. $\frac{1}{2} \times \frac{1}{2} = \frac{1}{4}$ (probability of getting two heads)

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1000

Compliance Requirements

9. The cost of the equipment is \$100,000. The equipment is depreciated over 10 years using the straight-line method. The equipment is sold for \$20,000 at the end of year 10.

2. one of the products of interest to the community is another one

→ **smaller** → the extent to which laws and regulations of the countries in which a firm operates are similar to the standards of the home country. First to the segment 1, 3 = MC → subject to another country's standards that is not taken → assumed that a firm can easily adapt to another

A. Estuary

[illegible]

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