

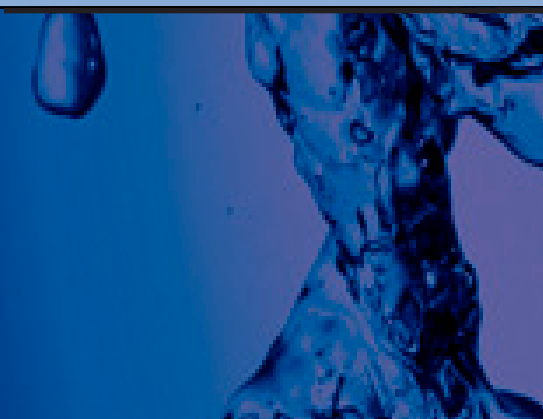
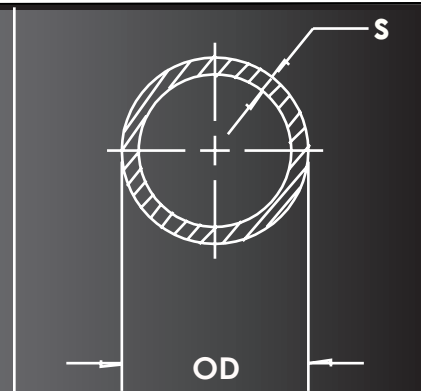
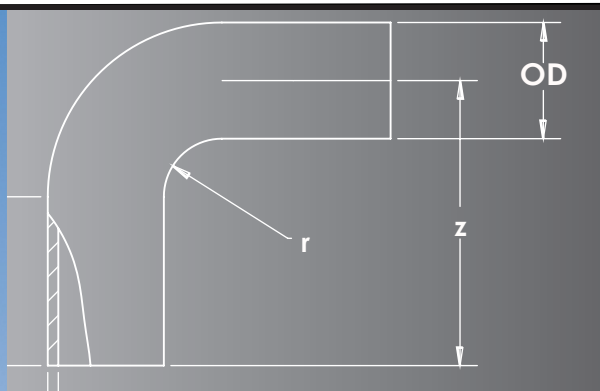


ASAHI/AMERICA

EFFECTIVE: 10/1/11

Industrial Piping Systems Dimensional Guide

**Chem Proline®
PE 100-RC
Piping System**



35 Green Street, PO Box 653, Malden, MA 02148
Tel: (781) 321-5409 - Toll Free: (800) 343-3618 - Fax: (781) 397-8831 - (800) 787-6861
www.asahi-america.com - asahi@asahi-america.com
Direct Sales: East (800) 232-7244 / Central (800) 442-7244 / West (800) 282-7244



Chem Proline®

PE 100-RC Piping System

by Asahi/America



Asahi/America, Inc. introduces Chem Proline®, a new crack resistant polyethylene piping system designed for the harshest liquid chemical applications. Made from the latest generation of PE resin (PE100-RC), Chem Proline® pipe and fittings possess the greatest resistance to “slow crack growth.” Chem Proline® is a lower cost alternative to metal, fiberglass reinforced plastic pipe and lined steel pipe.

Specifications:

Standard Materials: PE 100-RC Polyethylene

Standard Size Range: 1/2" - 4"

Available Fittings: 90 Elbow, 45 Elbow, End cap, Female Adapter, Male Adapter, Tee, Reducer & Stub End, Unions, Couplings

Welding Method: Socket Fusion
Butt Fusion
Electrofusion

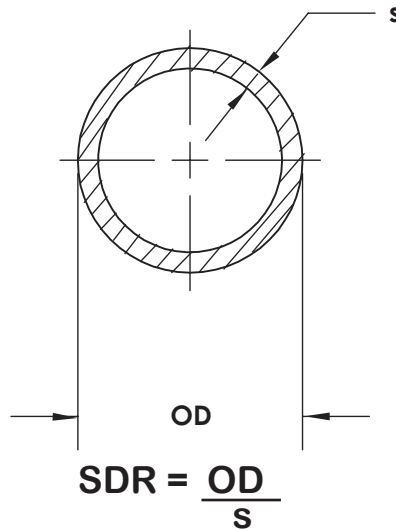
Features and Benefits:

- Available in sizes 1/2" to 4" with socket fittings in a variety of styles
- Fast, low-cost installations
- Operating pressures up to 150 psi
- Constructed from specially engineered PE 100-RC high-density polyethylene (HDPE) resin, which is extremely ductile, light-weight and corrosion resistant

Note to help use this guide:

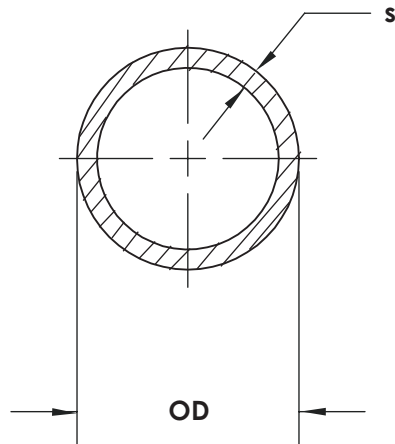
All the systems are metric sized based on Standard Dimension Ratio or SDR pipe sizes. All systems, regardless of material, maintain a constant pipe and fitting OD. Imperial (inch) ODs are provided as nominal sizes only.

Within the SDR System, nominal pressure ratings vary according to material but not OD. Pressure ratings generally remain constant within material and SDR classification. For example: all SDR21 PVDF pipe and fittings are rated to 16 bar or 230 psi. Exceptions, if any, may be found in cases where valves or threads carry ratings independent of SDR sizing.

**AGRU CAD CD**

Agro has released Agro CAD, a CAD part file generation software for their piping systems. This software allows users to download part models (drawings) in a wide variety of file formats. Copies of Agro CAD are available FREE of charge upon request. Please email us at asahi@asahi-america.com to request your copy. Use code PUB60070 when ordering.

Please note this software is compatible with our Purad® PVDF, PolyPure® PPN, PP-Pure®, Proline® PP, Ultra Proline® ECTFE (Halar®) & Chem Proline® piping systems.



Pipe 5 meter-16.4' length

OD		SDR 7 / PN 16 / 230 PSI			
[mm]	[inch]	OD	s	Weight (lbs)	Asahi Part #
20	1/2	0.787	0.110	1.76	581102005
25	3/4	0.984	0.138	2.65	581102007
32	1	1.260	0.173	4.26	581102010*
50	1-1/2	1.969	0.272	10.33	581102015*
63	2	2.480	0.339	16.23	581102020*
90	3	3.543	0.484	32.96	581102030*
110	4	4.331	0.594	49.36	581102040*

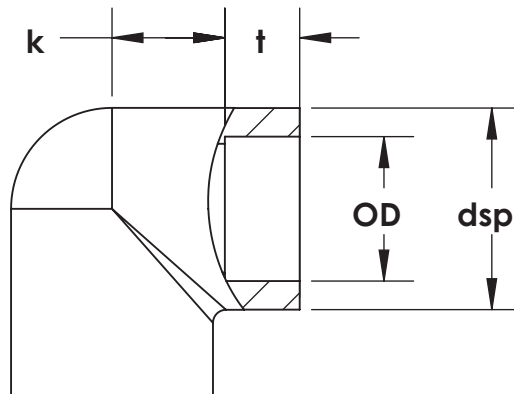
OD		SDR 11 / PN 10 / 150 PSI			
[mm]	[inch]	OD	s	Weight (lbs)	Asahi Part #
20	1/2	0.787	0.098	1.48	581202005*
25	3/4	0.984	0.106	2.13	581202007*
32	1	1.260	0.114	3.09	581202010
50	1-1/2	1.969	0.181	7.39	581202015
63	2	2.480	0.228	11.68	581202020
90	3	3.543	0.323	23.59	581202030
110	4	4.331	0.394	35.05	581202040

Pipe & Fitting OD size is metric, inch OD provided as nominal size only
PN10/150psi & PN16/230psi pressure rating

* NON STANDARD STOCK ITEMS

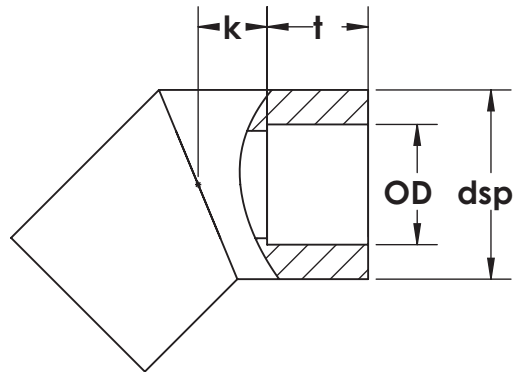
Socket Fittings

OD		Dimensions		
[mm]	[inch]	dsp	t	k
Spigot diameter		OD of fitting	Socket depth	End of spigot to center of fitting

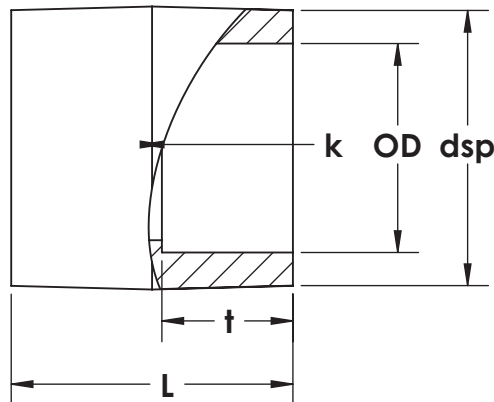


90° Elbow

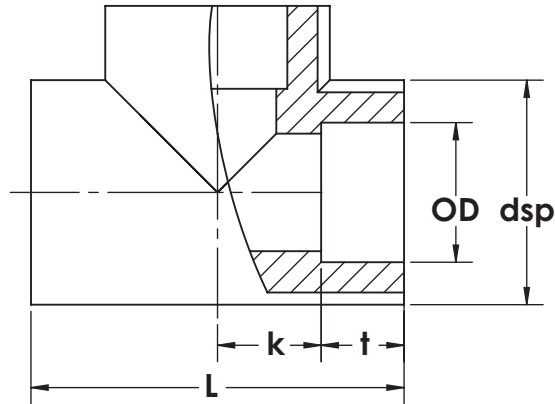
OD		Dimensions			SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	dsp	k	t	Weight (lbs.)	Asahi Part #
20	1/2	1.15	0.55	0.63	0.04	581105005
25	3/4	1.38	0.67	0.71	0.07	581105007
32	1	1.70	0.79	0.79	0.11	581105010
50	1-1/2	2.58	1.10	0.98	0.31	581105015
63	2	3.19	1.38	1.10	0.57	581105020
90	3	4.48	1.93	1.42	1.32	581105030
110	4	5.22	2.09	1.69	1.92	581105040

**45° Elbow**

OD		Dimensions			SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	dsp	k	t	Weight (lbs.)	Asahi Part #
20	1/2	1.18	0.43	0.63	0.04	581108005
25	3/4	1.38	0.55	0.71	0.07	581108007
32	1	1.69	0.67	0.79	0.09	581108010
50	1-1/2	2.56	1.02	0.94	0.24	581108015
63	2	3.19	1.30	1.14	0.42	581108020
90	3	4.45	1.81	1.46	0.99	581108030
110	4	5.31	2.20	1.65	1.50	581108040

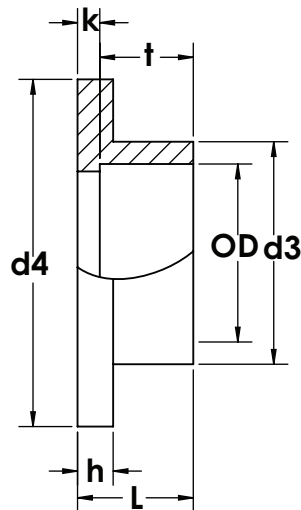
**Coupling**

OD		Dimensions				SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	dsp	L	k	t	Weight (lbs.)	Asahi Part #
20	1/2	1.16	1.38	0.12	0.63	0.02	581116005
25	3/4	1.38	1.54	0.12	0.71	0.04	581116007
32	1	1.70	1.69	0.12	0.79	0.07	581116010
50	1-1/2	2.54	2.05	0.16	0.94	0.15	581116015
63	2	3.15	2.44	0.20	1.14	0.24	581116020
90	3	4.53	3.15	0.20	1.46	0.66	581116030
110	4	5.27	3.54	0.24	1.65	0.88	581116040



Tees

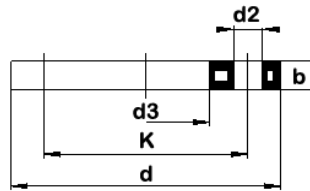
OD		Dimensions				SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	dsp	L	k	t	Weight (lbs.)	Asahi Part #
20	1/2	1.15	2.36	0.55	0.63	0.07	581120005
25	3/4	1.39	2.76	0.67	0.71	0.11	581120007
32	1	1.69	3.23	0.83	0.79	0.15	581120010
50	1-1/2	2.56	4.25	1.18	0.94	0.40	581120015
63	2	3.19	5.16	1.44	1.14	0.68	581120020
90	3	4.49	7.28	2.01	1.46	1.90	581120030
110	4	5.28	8.07	2.24	1.73	2.47	581120040



Stub End*

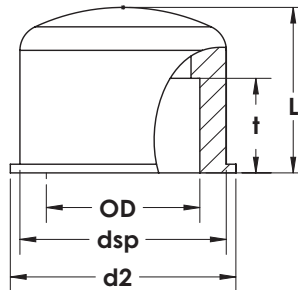
OD		Dimensions						SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	d3	d4	h	L	k	t	Weight (lbs.)	Asahi Part #
20	1/2	1.06	1.77	0.39	0.83	0.20	0.63	0.02	581132005
25	3/4	1.30	2.28	0.39	0.91	0.20	0.71	0.04	581132007
32	1	1.61	2.65	0.39	1.02	0.24	0.79	0.09	581132010
50	1-1/2	2.40	3.47	0.51	1.18	0.24	0.94	0.15	581132015
63	2	2.99	4.02	0.55	1.34	0.20	1.14	0.20	581132020
90	3	4.25	5.43	0.67	1.57	0.28	1.46	0.46	581132030
110	4	5.16	6.22	0.71	1.85	0.20	1.65	0.66	581132040

*Requires backing ring. (1/2" - 4") found on page 8.



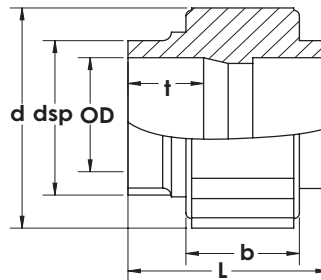
Backing Ring

OD		Dimensions							MOP PN 16 / 230 PSI	
[mm]	[inch]	D	k	d6	d2	b	Bolt Holes	Torque [ft/lbs]	Weight (lbs)	Asahi Part #
20	1/2	3.740	2 3/8	1.102	5/8	0.472	4	11	0.49	5046005
25	3/4	4.016	2 3/4	1.339	5/8	0.472	4	11	0.62	5046007
32	1	4.488	3 3/8	1.654	5/8	0.630	4	11	0.93	5046010
50	1-1/2	5.236	3 7/8	2.441	5/8	0.709	4	26	1.32	5046015
63	2	6.378	4 7/8	3.071	3/4	0.709	4	26	1.92	5046020
90	3	7.638	6	4.370	3/4	0.709	4	30	2.43	5046030
110	4	9.016	7 1/2	5.236	3/4	0.709	8	30	3.57	5046040



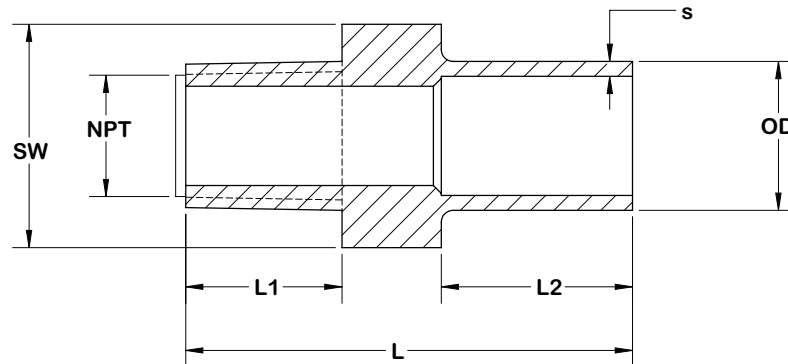
End Cap

OD		Dimensions				SDR 7 / PN 16 / 230 PSI	
[mm]	[inch]	dsp	d2	L	t	Weight (lbs.)	Asahi Part #
20	1/2	1.14	1.26	1.02	0.63	0.02	581112005
25	3/4	1.38	1.50	1.18	0.71	0.02	581112007
32	1	1.69	1.85	1.38	0.79	0.04	581112010
50	1-1/2	2.54	2.76	1.97	0.94	0.15	581112015
63	2	3.17	3.39	2.32	1.14	0.29	581112020
90	3	4.45	4.69	3.03	1.46	0.64	581112030
110	4	5.31	5.55	3.70	1.65	0.97	581112040



Union-FKM

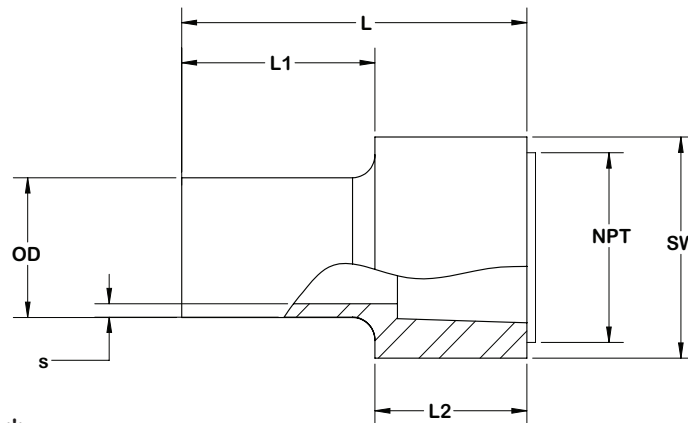
OD		Dimensions					SDR 7 / MOP PN 10 / 150 PSI	
[mm]	[inch]	L	d	b	dsp	t	Weight (lbs)	Asahi Part #
20	1/2	1.77	1.85	0.94	1.07	0.63	0.09	581134005
25	3/4	1.93	2.24	1.02	1.41	0.71	0.13	581134007
32	1	2.09	2.52	1.18	1.63	0.79	0.18	581134010
50	1-1/2	2.64	3.50	1.38	2.31	0.96	0.40	581134015
63	2	3.11	4.29	1.53	2.90	1.14	0.68	581134020



Male Adapter (Butt*)

OD		Dimensions								SDR 11 / MOP Machined / 90 PSI	
[mm]	[inch]	OD	s	L1	L2	L	NPT	SW	Ø	Weight (lbs)	Asahi part #
20	1/2	0.79	0.110	0.72	0.59	1.81	1/2	0.94	1.00	0.02	581152005
25	3/4	0.98	0.138	0.79	0.72	2.01	3/4	1.25	1.38	0.02	581152007
32	1	1.26	0.118	0.95	1.25	2.40	1	1.42	1.56	0.04	581152010
50	1-1/2	1.97	0.181	1.16	1.57	2.91	1 1/2	2.16	2.36	0.13	581152015
63	2	2.48	0.228	1.26	1.75	3.15	2	2.58	2.58	0.20	581152020

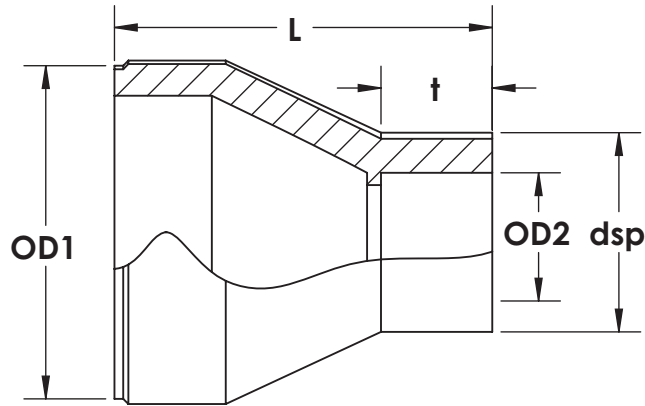
* Requires use of socket coupling on page 6.



Female Adapter*

OD		Dimensions								SDR 11 / MOP Machined / 90 PSI	
[mm]	[inch]	OD	s	L1	L2	L	NPT	SW	Ø	Weight (lbs)	Asahi part #
20	1/2	0.79	0.110	0.89	0.88	1.77	1/2	1.25	1.38	0.07	581153005
25	3/4	0.98	0.138	0.97	1.00	1.97	3/4	1.50	1.62	0.13	581153007
32	1	1.26	0.118	1.10	1.18	2.28	1	1.80	2.00	0.18	581153010
50	1-1/2	1.97	0.181	1.38	1.30	2.68	1 1/2	2.74	3.00	0.49	581153015
63	2	2.48	0.228	1.59	1.36	2.95	2	3.40	3.70	0.75	581153020

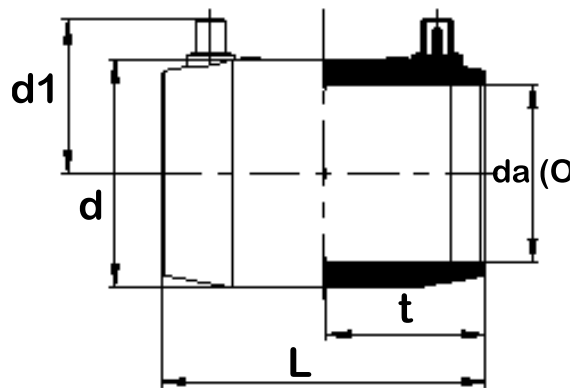
* Requires use of socket coupling on page 6.



Concentric Reducer

OD		Dimensions		SDR 7 / PN 10 / 150 PSI	
[mm]	[inch]	t	L	Weight (lbs.)	Asahi Part #
25/20	3/4 x 1/2	0.63	1.54	0.02	581129101
32/20	1 x 1/2	0.63	1.79	0.04	581129130
32/25	1 x 3/4	0.71	1.77	0.04	581129131
50/32	1-1/2 x 1	0.79	2.17	0.09	581129211
63/32	2 x 1	0.79	2.56	0.15	581129249
63/50	2 x 1-1/2	0.94	2.56	0.18	581129251
90/63	3 x 2	1.14	3.46	0.42	581129338
110/90	4 x 3	1.46	3.49	0.66	581129422

Note: OD1 male spigot. OD2 female socket

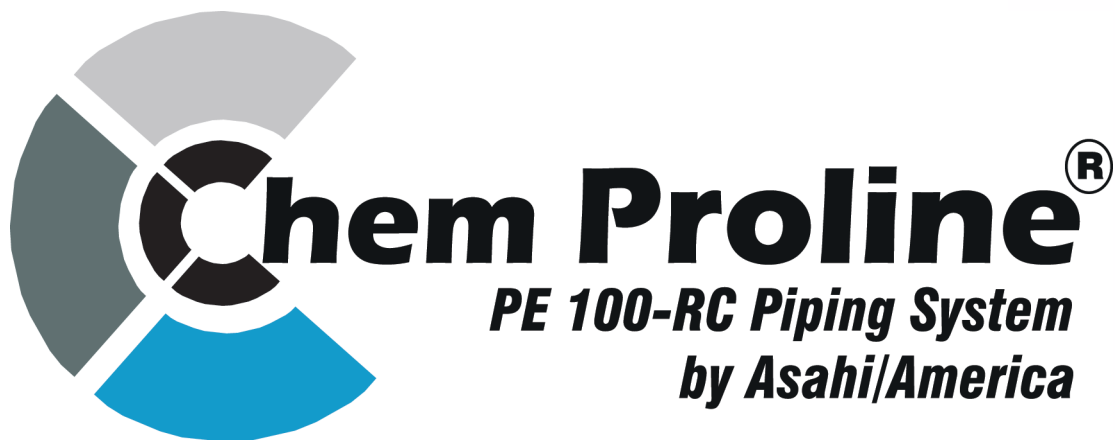


Electrofusion Coupling

OD		Dimensions				PN 10/ 150 PSI	
[mm]	[inch]	L	d	d1	t	Weight (lbs)	Asahi Part #
20	1/2	2.95	1.18	1.54	1.46	0.09	581117005
25	3/4	3.19	1.38	1.54	1.57	0.09	581117007
32	1	3.50	1.65	1.69	1.73	0.13	581117010
50	1-1/2	4.37	2.64	2.09	2.17	0.35	581117015
63	2	5.00	3.27	2.36	2.48	0.57	581117020
90	3	5.60	4.53	2.91	2.76	1.15	581117030
110	4	5.94	5.31	3.23	2.95	1.65	581117040

TERMS AND CONDITIONS

1. Asahi/America, Inc. ("Asahi") hereby gives notice of its objection to any different or additional terms and conditions except for any such items and conditions as may be expressly accepted by it in writing. The terms and conditions herein **are the final expression of the parties' agreement and** shall supersede any provisions, terms and conditions contained on any confirmation order or other writing buyer may give or receive and rights of the parties shall be governed exclusively by the terms and conditions hereof.
2. Buyer's confirmation is accepted for merchandise selection purpose only. All orders are subject to acceptance by Asahi at its Malden, Massachusetts office and Asahi reserves the right to reject any order in whole or in part without incurring any liability to buyer or any branch or division thereof for such order as may be rejected. Asahi shall have the right at its discretion to limit any credit to be extended hereunder or to require payment before delivery. In the event Asahi should be unable to manufacture or decide not to manufacture any product ordered, Asahi shall notify the buyer, but shall not be liable for any non-delivery of such merchandise. Buyer shall, however, accept delivery and pay for all other merchandise that is included on that order.
3. An order once placed with and accepted by Asahi cannot be cancelled or modified by buyer without Asahi's written consent which, if granted, will be subject to terms that will indemnify Asahi against loss.
4. Asahi does not accept in-store completion dates and cancellation dates will not be accepted on made-to-order product once the order has been put into production.
5. Asahi orders (once accepted) may have backorders when necessary. Backorders are not subject to cancellation by buyer unless 30 days past scheduled delivery date.
6. Delivery shall occur and risk of loss shall pass upon delivery of the merchandise sold hereunder to the carrier. Asahi will use buyer's routing guide or instructions after approval from Asahi's Traffic Department. All customers routings are F.O.B. shipping point. Asahi generates one invoice per shipment and does not include invoices with shipment.
7. The buyer agrees that no shipment from Asahi will be returned from a carrier unless damage or shortages are acknowledged and signed by the carrier's driver. All claims for lost or damaged shipments must be made directly by buyer to the delivering carrier at time of delivery. Shortages due to packing errors must be reported in writing within 10 days of receipt to Asahi's Customer Service Department. Adjustments can be made only if reported to Asahi in writing within that time. Buyer's requests for proof of delivery by Asahi must be made within 30 days of receipt of invoice. After 30 days, the merchandise will be considered as delivered.
8. Written approval from Asahi's home office must be obtained before returning defective merchandise as well as unworn, good quality merchandise of any quantity. Approval will be granted only to return unused, good quality merchandise shipped as a result of Asahi error. All returns must be sent prepaid. Upon approval by Asahi, return authorization numbers which must be visible on the outside carton. Returns not carrying return authorization numbers will be refused delivery by Asahi and returned to sender at sender's expense.
9. Buyer agrees that it will not impose upon Asahi any handling, service or any other charges of **that** nature whatsoever.
10. Asahi will not be liable for any delay in performance of orders or contracts, or in delivery or shipment of goods, or for any damage suffered by buyer by reason of such delay in performance of orders or contracts, or in delivery or shipment of goods, or for any damage suffered by buyer by reason of such delay, when such delay is directly or indirectly caused by or in any manner arises from fire, flood, accident, riot, act of God, war, governmental interference or embargoes, strikes, labor difficulties, shortage of labor, fuel, power, materials, or supplies, transportation delays or any other cause or causes (whether or not similar in nature to any of these hereinbefore specified) beyond its control. Asahi reserves the right to discontinue product lines and make changes in products offered at any time.
11. Asahi products are intended to be sold in buyer's outlet(s) as addressed on this order. All branches must be separately approved. Transshipping of merchandise to approved branches of an approved account may not take place without the written approval of Asahi's Malden, MA office.
12. Asahi warrants only that the goods described on the face of the purchase order conform to Asahi's customary quality standards for such goods. Otherwise ASAHI MAKES NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE OF THE ORDER. Without limiting the generality of the foregoing, ASAHI SPECIFICALLY **EXCLUDES AND DISCLAIMS ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, APPLICATION OR USE AND ANY IMPLIED WARRANTY AGAINST CLAIMS BY THIRD PARTIES FOR INFRINGEMENT AND THE LIKE. This warranty constitutes the only warranty given, superceding all prior or contemporaneous oral or written representations. No Seller employee or any other person is authorized to modify this warranty or make any warranty in addition to those set forth herein.**
13. **ASAHI MAKES NO WARRANTIES, EITHER EXPRESSED, IMPLIED OR STATUTORY, INCLUDING ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, APPLICATION OR USE AND ANY IMPLIED WARRANTY AGAINST CLAIMS BY THIRD PARTIES FOR INFRINGEMENT AND THE LIKE FOR PRODUCTS ORDERED TO CUSTOM SPECIFICATIONS BY THE BUYER, THAT ARE EXPERIMENTAL, DEVELOPMENTAL OR PROTOTYPE PRODUCTS.**
14. Buyer's remedies in the event of any breach by Asahi shall be exclusively limited to the return of the goods and repayment of the price. These remedies are the purchaser's exclusive remedies for breach of warranty. In no event shall buyer be entitled to claim any special, incidental, or consequential damages of any nature, including, but not limited to, loss of anticipated profits and injury to persons or property.
15. Payment terms shall be as set forth on the face of Asahi's invoice to buyer. Terms adjustment will be made upon request of buyer only if shipment is made more than 7 days in advance of buyer's requested ship date. Discounts will not be allowed on late payments. Discounts are applicable on merchandise only and not on freight or service charges. An interest charge of 1 1/2% percent per month (an annual rate of 18%) will be charged in states where legal on the unpaid balance owed together with cost of collection including reasonable attorney's costs. Asahi will charge a \$75.00 minimal order requirement on all orders. Any tax or duty imposed by any government will be added to the sales price.
16. Any waiver of any of these terms of sale by Asahi shall not be construed to be a waiver of the terms and conditions hereof as applied to subsequent transactions.
17. Any controversy or claim arising out of or relating to this agreement or that breach thereof shall be governed by the laws of the Commonwealth of Massachusetts. **Any action or suit must be commenced within one year following delivery of the goods.**



35 Green Street, PO Box 653, Malden, MA 02148
Tel: (781) 321-5409 - Toll Free: (800) 343-3618 - Fax: (781) 397-8831 - (800) 787-6861
www.asahi-america.com - asahi@asahi-america.com
Direct Sales: East (800) 232-7244 / Central (800) 442-7244 / West (800) 282-7244