



Random Packing

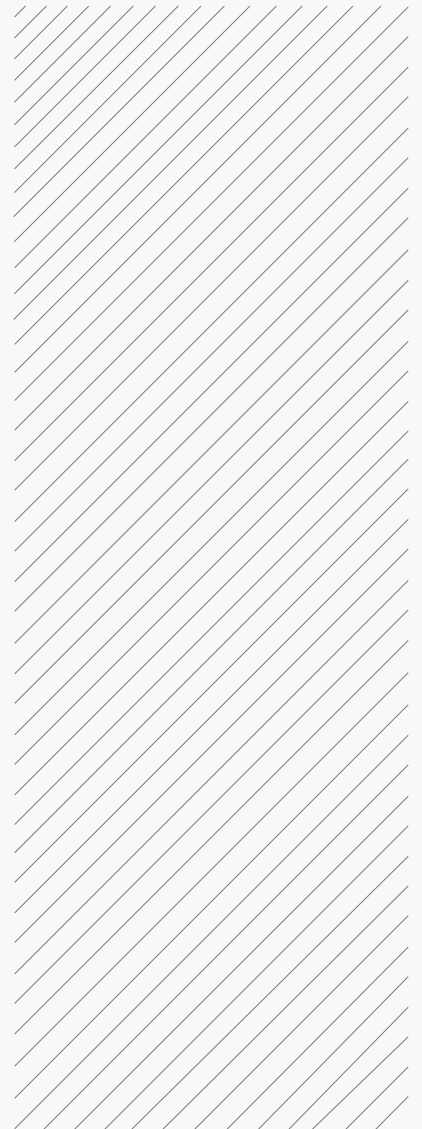
Weave Impossible to Possible



BOEDON Industech Limited

www.boedon.com | sales@boedon.com

BOEDON Brochure



We offer random packing in different materials and structures to meet your various gas-liquid mass transfer demands.

Random packing can be made of metal, plastic or ceramic materials. It is an efficient tower packing widely used in distillation, absorption and fractionation links in chemical plants and refineries. Random packing is divided into Raschig rings, Pall rings, saddle rings, mini rings and customized rings by structure, featuring low pressure drop, high flow rate and high mass transfer performance. We can offer random packing to satisfy your separation demands and working environments.

Random Packing

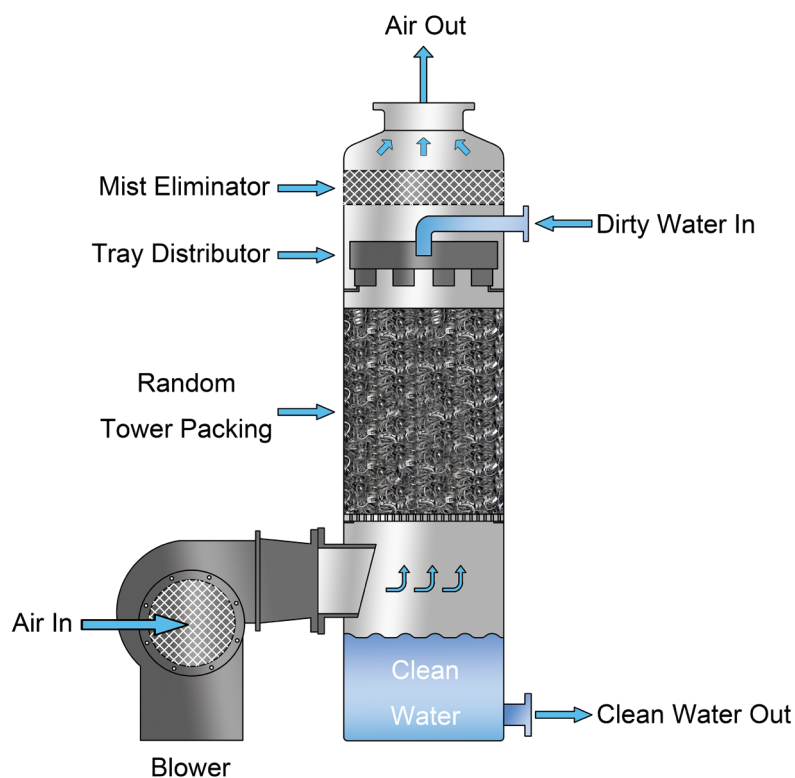


RANDOM PACKING

Working Principles

Random packing is widely used in absorption towers, distillation towers, degasification towers and stripping towers, aiming to achieve gas-liquid mass transfer. The following is an example of the working principle of random packing in stripping towers.

Stripping is a process of recovering the solute absorbed from the fluid and separating liquid from solute. First, differing from the orderly distribution of structured packing, random packing is randomly distributed on the packed bed, strippant (gas) enters from the bottom and moves upward. Dirty water sprays downward from tray distributors. During the process, the solute molecules are transferred into gases through an endothermic process. Gases and liquids contact each other in a form of counter-flow in the tower. The irregular distribution of random packing increases the surface area and enhances the mass transfer between two fluids. The solute turns into gas and mixes with strippant. Droplets are removed through the mist eliminator at the top of the tower and flows out from the top of the tower. Clean liquid moves downward due to gravity and flows out at the bottom of the tower.



RANDOM PACKING

Specification

Material

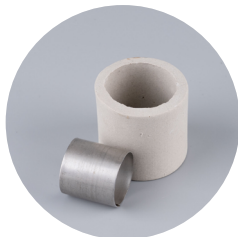
Metal (stainless steel, carbon steel or other alloy), plastic (PP, PE, PVDF, etc.), ceramic

Structure

Raschig ring, Pall ring, saddle ring, mini ring, etc.

RANDOM PACKING

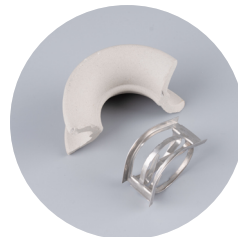
Popular Types



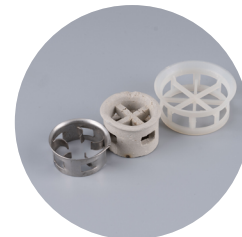
Raschig ring
Metal/plastic/ceramic



Pall ring
Metal/plastic/ceramic



Saddle ring
Metal/plastic/ceramic



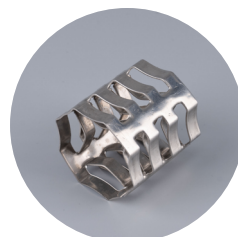
Cascade mini ring
Metal/plastic/ceramic



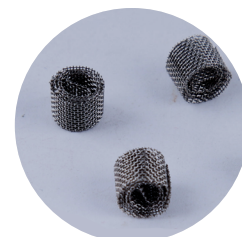
Super mini ring
Metal/plastic/ceramic



Super Raschig ring
Metal only



VSP ring
Metal only



Dixon ring
Metal only



Polyhedral hollow ball
Plastic only



Tri-Pack
Plastic only



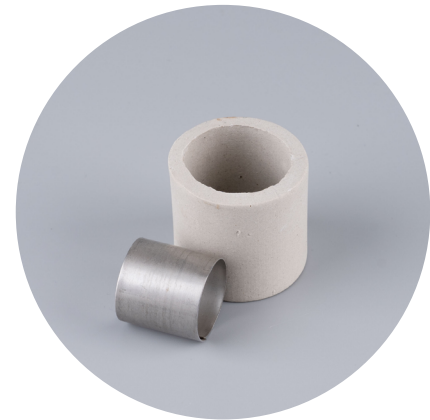
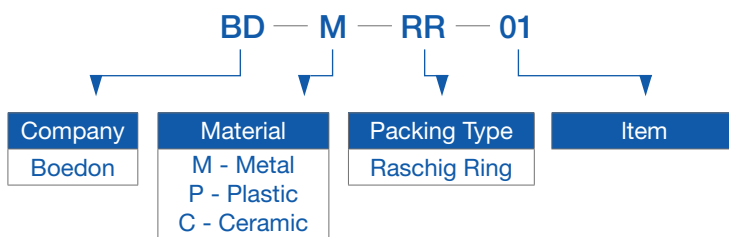
Pentagon ring
Plastic only



Super saddle ring
Plastic/ceramic

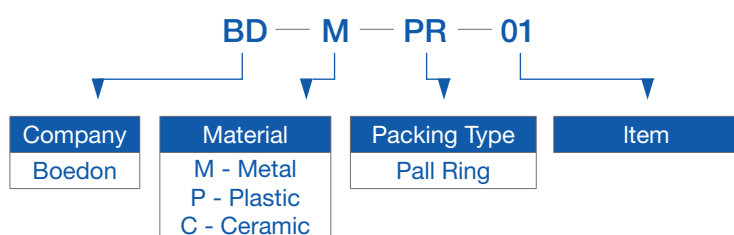
RANDOM PACKING

Raschig Ring



Model	Size (D × T × H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage(%)
-					
BD-M-RR-01	16 × 0.5 × 16	660	2480000	350	90
BD-M-RR-02	25 × 0.8 × 25	610	55000	220	93
BD-M-RR-03	50 × 1.0 × 50	430	7000	110	95
BD-M-RR-04	80 × 1.0 × 80	400	1820	60	96
BD-P-RR-05	25 × 1.0 × 25	88	48500	210	90
BD-P-RR-06	50 × 1.5 × 50	65	6500	105	92
BD-C-RR-07	6 × 2 × 6	750	3110000	789	73
BD-C-RR-08	10 × 2 × 10	700	720000	460	70
BD-C-RR-09	15 × 2 × 15	700	250000	350	70
BD-C-RR-10	25 × 2.5 × 25	600	49000	235	78
BD-C-RR-11	38 × 4 × 38	550	1200	178	75
BD-C-RR-12	50 × 5 × 50	530	6800	136	81
BD-C-RR-13	80 × 8 × 80	650	1930	108	680
BD-C-RR-14	100 × 10 × 10	680	100	90	70
BD-C-RR-15	150 × 15 × 150	700	295	75	68

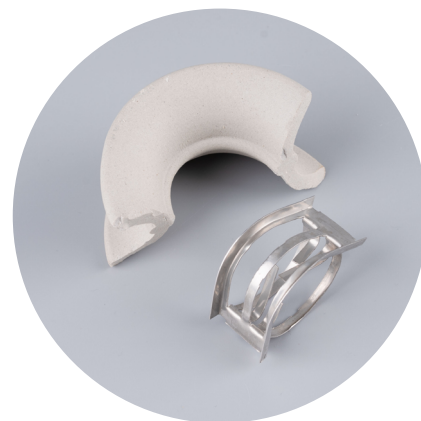
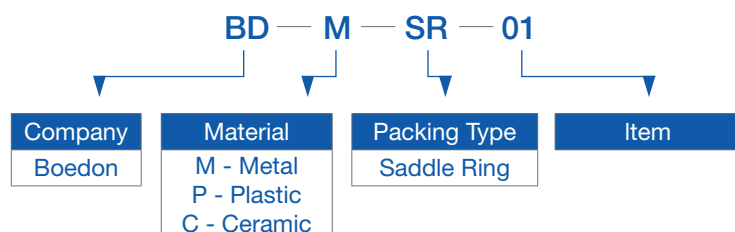
Saddle Ring



Model	Size (D × T × H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage(%) %
-					
BD-M-PR-01	16 × 0.3 × 16	360	201000	346	95.5
BD-M-PR-02	25 × 0.4 × 25	302	5100	212	96.2
BD-M-PR-03	25 × 0.5 × 25	400	54000	216	95
BD-M-PR-04	25 × 0.6 × 25	461	5400	219	94.2
BD-M-PR-05	38 × 0.4 × 38	262	15180	145	96.7
BD-M-PR-06	38 × 0.6 × 38	328	15000	146	95.9
BD-M-PR-07	50 × 0.5 × 50	194	6500	106	97.5
BD-M-PR-08	50 × 0.7 × 50	285	6500	108	96.4
BD-M-PR-09	50 × 0.9 × 50	365	6500	109	95.4
BD-M-PR-10	76 × 0.8 × 76	205	183	69	97.4
BD-M-PR-11	90 × 1.0 × 90	229	1160	62	97.1
BD-P-PR-12	16 × 1 × 16	141	230000	260	91
BD-P-PR-13	25 × 1.2 × 25	85	48300	213	91
BD-P-PR-14	38 × 1.4 × 38	82	15800	151	91
BD-P-PR-15	50 × 1.5 × 50	60	6300	100	92
BD-P-PR-16	76 × 2.6 × 76	62	1930	72	92
BD-C-PR-17	38 × 4 × 38	570	13400	150	75
BD-C-PR-18	50 × 5 × 50	550	6800	120	78
BD-C-PR-19	80 × 8 × 80	520	1950	75	80

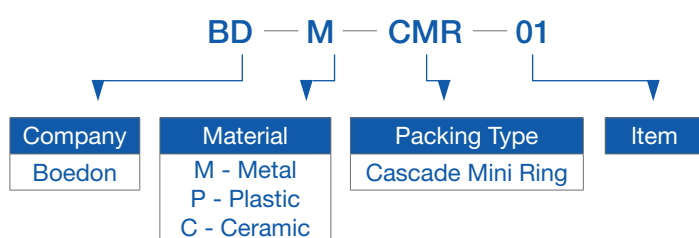
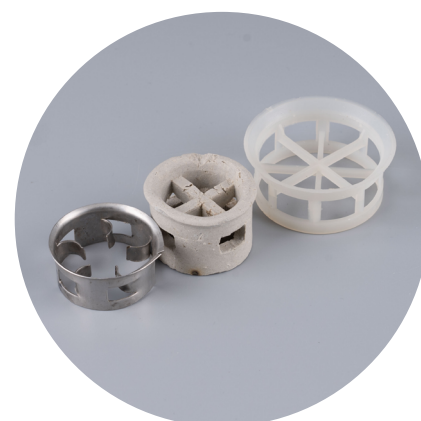
RANDOM PACKING

Saddle Ring



Model	Size (D × T × H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
-						
BD-M-SR-01	16.5 × 0.25 × 10.6	223	324110	275	97.2	300.2
BD-M-SR-02	16.5 × 0.3 × 10.6	263	324110	275	96.7	304.9
BD-M-SR-03	25.9 × 0.25 × 12.6	163	127180	415	94.8	489.2
BD-M-SR-04	25.9 × 0.3 × 12.6	192	127180	344	95.5	393.2
BD-M-SR-05	25.9 × 0.4 × 12.6	266	127180	199	96.6	221
BD-M-SR-06	35.4 × 0.25 × 18.8	124	51180	151	98.4	158.3
BD-M-SR-07	35.4 × 0.3 × 18.8	146	51180	151	98.1	159.7
BD-M-SR-08	35.4 × 0.4 × 18.8	203	51180	151	97.4	163.2
BD-M-SR-09	48.5 × 0.3 × 28.6	95	15550	97	98.8	101
BD-M-SR-10	48.5 × 0.4 × 28.6	132	15550	97	98.3	102.5
BD-M-SR-11	48.5 × 0.5 × 28.6	169	15550	97	97.9	103.9
BD-M-SR-12	67 × 0.4 × 37	113	9000	84	98.6	87.3
BD-M-SR-13	67 × 0.5 × 37	145	9000	84	98.2	88.4
BD-M-SR-14	76.5 × 0.4 × 42.5	83	4690	61	99	62.9
BD-M-SR-15	76.5 × 0.5 × 42.5	106	4690	61	98.7	63.5
BD-P-SR-16	25 × 1.2 × 13	102	97680	288	85	467
BD-P-SR-17	38 × 1.2 × 19	91	25200	264	95	309
BD-P-SR-18	50 × 1.5 × 25	75	9400	250	96	282
BD-P-SR-19	76 × 3 × 38	59	3700	200	97	220
BD-C-SR-20	16 × 2 × 12	710	382000	450	70	1311
BD-C-SR-21	25 × 3 × 19	610	84000	250	74	617
BD-C-SR-22	38 × 4 × 30	590	25000	164	75	389
BD-C-SR-23	50 × 5 × 40	560	9300	142	76	323
BD-C-SR-24	76 × 9 × 57	520	1800	91	78	194

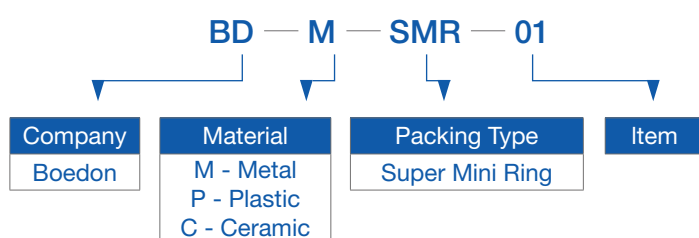
Cascade Mini Ring



Model	Size (D × T × H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
BD-M-CMR-01	25 × 0.5 × 12.5	383	98120	221	95	257
BD-M-CMR-02	38 × 0.6 × 19	325	30040	153	96	173
BD-M-CMR-03	50 × 0.8 × 25	308	12340	109	96	123
BD-M-CMR-04	76 × 1.2 × 38	306	3540	72	96	81
BD-P-CMR-05	25 × 1.2 × 13	98	81500	228	90	313
BD-P-CMR-06	38 × 1.4 × 19	58	27200	133	93	176
BD-P-CMR-07	50 × 1.5 × 25	55	10740	114	94	143
BD-P-CMR-08	76 × 3 × 38	698	3420	90	93	112
BD-C-CMR-09	25 × 3 × 15	650	72000	210	73	540
BD-C-CMR-10	38 × 4 × 23	630	21600	153	74	378
BD-C-CMR-11	50 × 5 × 30	580	9100	102	76	232
BD-C-CMR-12	76 × 9 × 46	530	2500	75	78	158

RANDOM PACKING

Super Mini Ring



Model	Size (D × T × H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
BD-M-SMR-01	16 × 0.5 × 5.5	604	630000	348	92	312
BD-M-SMR-02	25 × 0.6 × 9	506	160000	228	94	280
BD-M-SMR-03	38 × 0.7 × 12.7	390	48000	150	95	175
BD-M-SMR-04	50 × 0.8 × 17	275	21500	115	97	156
BD-P-SMR-05	38 × 1.2 × 12	70	46000	145	92	186
BD-P-SMR-06	50 × 1.5 × 17	67	21500	128	93	159
BD-P-SMR-07	76 × 2.5 × 26	58	6500	116	93	144
BD-C-SMR-08	16 × 1.5 × 10	750	300500	250	87	1150
BD-C-SMR-09	25 × 2.0 × 16	700	87040	180	85	800
BD-C-SMR-10	30 × 2.5 × 18	690	55000	170	85	850
BD-C-SMR-11	38 × 3.5 × 23	720	27600	140	85	905
BD-C-SMR-12	50 × 4.5 × 30	650	10100	110	84	880

RANDOM PACKING

Super Raschig Ring

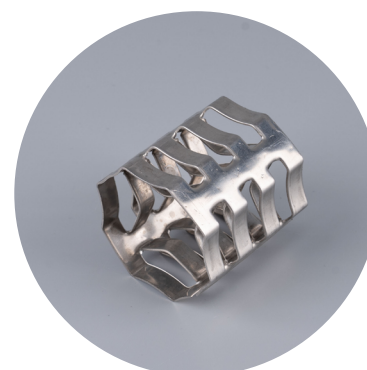


BD — M — SRR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal	Super Raschig Ring	

Model	Size mm	Bulk Density 304 kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
-						
BD-M-SRR-01	0.3	230	180000	315	97.1	343.9
BD-M-SRR-02	0.5	275	145000	250	96.5	278
BD-M-SRR-03	0.6	310	145000	215	96.1	393.2
BD-M-SRR-04	0.7	240	45500	180	97	242.2
BD-M-SRR-05	1	220	32000	150	97.2	163.3
BD-M-SRR-06	1.5	170	13100	120	97.8	128
BD-M-SRR-07	2	165	9500	100	97.9	106.5
BD-M-SRR-08	3	150	4300	80	98.1	84.7
BD-M-SRR-09	3.5	150	3600	67	98.1	71

Metal VSP Ring



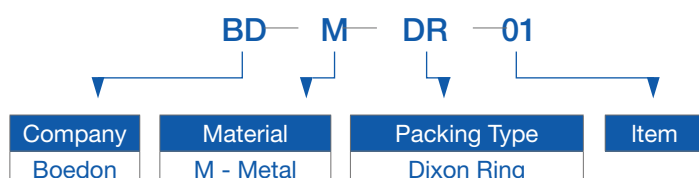
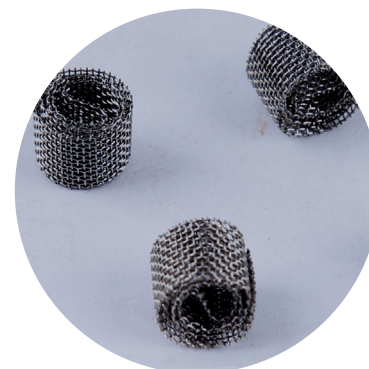
BD — M — VSPR — 01

Company	Material	Packing Type	Item
Boedon	M - Metal	VSP Ring	

Model	Size (D × T × H) mm	Bulk Density 304 kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
-						
BD-M-VSPR-01	25 × 0.6 × 25	420	59200	250	93	310
BD-M-VSPR-02	38 × 0.6 × 38	396	14000	138	94.7	163
BD-M-VSPR-03	50 × 0.8 × 50	350	7000	121	95	144
BD-M-VSPR-04	76 × 1.0 × 76	280	1950	75	95	86

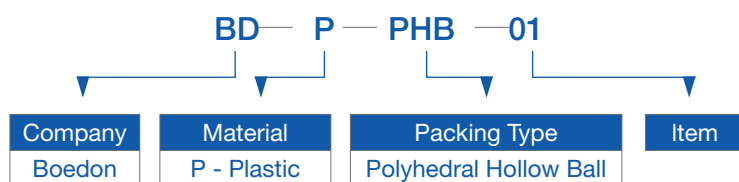
RANDOM PACKING

Dixon Ring



Model	Specs	Mesh Size	Tower Diameter	Theoretical Plate	Bulk Density	Surface Area	Voidage	Pressure Drop
-	mm	mesh	mm	pcs/m	(kg/m ³)	(m ² /m ³)	%	mbar/m
BD-M-DR-01	2 × 2	100	10–35	60–65	670	3700	91	30
BD-M-DR-02	3 × 3	100	20–50	50–55	520	2800	93	15
BD-M-DR-03	4 × 4	100	20–70	30–32	380	1700	95	10
BD-M-DR-04	5 × 5	100	20–100	15–20	295	1100	95	10
BD-M-DR-05	6 × 6	80	20–150	12–15	280	950	95	10
BD-M-DR-06	7 × 7	80	20–200	14–17	265	800	95	8
BD-M-DR-07	8 × 8	80	20–250	12–20	235	750	95	8
BD-M-DR-08	10 × 10	80	20–300	7–8	200	550	95	8

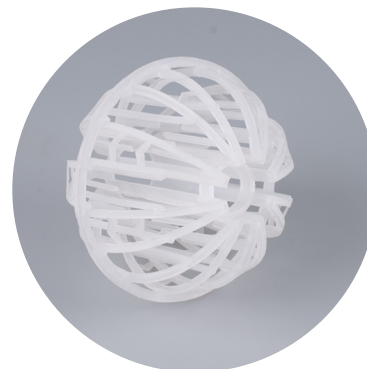
Plastic Polyhedral Hollow Ring



Model	Size	Bulk Density	Bulk Quantity	Surface Area	Voidage	Packing Factor
-	mm	kg/m ³	(pcs/m ³)	(m ² /m ³)	%	m ⁻¹
BD-P-PHB-01	25	64	64000	460	90	776
BD-P-PHB-02	38	72.5	25000	325	91	494
BD-P-PHB-03	50	52	11500	237	91	324
BD-P-PHB-04	76	75	3000	214	92	193
BD-P-PHB-05	100	56	1500	330	92	155

RANDOM PACKING

Plastic Tri-Pack Ring



Company	Material	Packing Type	Item
Boedon	P - Plastic	Tri-Pack Ring	

Model	Size mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
-						
BD-P-TPR-01	25	81	81200	85	90	28
BD-P-TPR-02	32	70	25000	70	92	25
BD-P-TPR-03	50	62	11500	48	93	16
BD-P-TPR-04	95	45	1800	38	95	12

RANDOM PACKING

Plastic Pentagon Ring

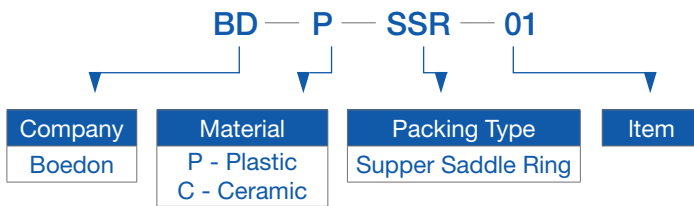


Company	Material	Packing Type	Item
Boedon	P - Plastic	Pentagon Ring	

Model	Size (D×T×H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
-						
BD-P-PR-01	38 × 12 × 1.2	112	46000	246	95	260.3
BD-P-PR-02	50 × 17 × 1.5	107	21500	218	97	225.2
BD-P-PR-03	76 × 26 × 2.5	92	6500	198	96	207.1

RANDOM PACKING

Supper Saddle Ring



Model	Size (D×T×H) mm	Bulk Density kg/m ³	Bulk Quantity (pcs/m ³)	Surface Area (m ² /m ³)	Voidage %	Packing Factor m ⁻¹
BD-P-SSR-01	25 × 1.2 × 20	56000	238	85	340	260.3
BD-P-SSR-02	38 × 1.2 × 19	25200	178	75	201	225.2
BD-P-SSR-03	50 × 1.5 × 25	9400	168	68	184	260.3
BD-P-SSR-04	76 × 3 × 38	3700	130	52	138	225.2
BD-C-SSR-05	25 × 3 × 20	76600	190	78	340	260.3
BD-C-SSR-06	38 × 4 × 30	24600	131	84	190	225.2
BD-C-SSR-07	50 × 6 × 42	7344	88.4	81	166	260.3
BD-C-SSR-08	76 × 9 × 53	1976	58.5	77	127	225.2

RANDOM PACKING

Features & Application

Features

- Multiple materials are available to suit to different environments.
- Multiple types for different packed towers.
- High flux and low pressure drop.
- High temperature resistance and good chemical stability.
- High mass transfer performance.
- High efficiency and low resistance.

Application



Chemical

- Degasification
- Reduced pressure distillation
- Extraction
- Gas compression, etc.



Refinery

- Vacuum distillation
- Compression
- Stripping
- Catalytic etc.



Oil & Gas

- Separation
- Dehydration
- Absorption
- Desulfurization etc.



BOEDON Industech Limited

Weave Impossible to Possible



E-Mail: sales@boedon.com

www.boedon.com