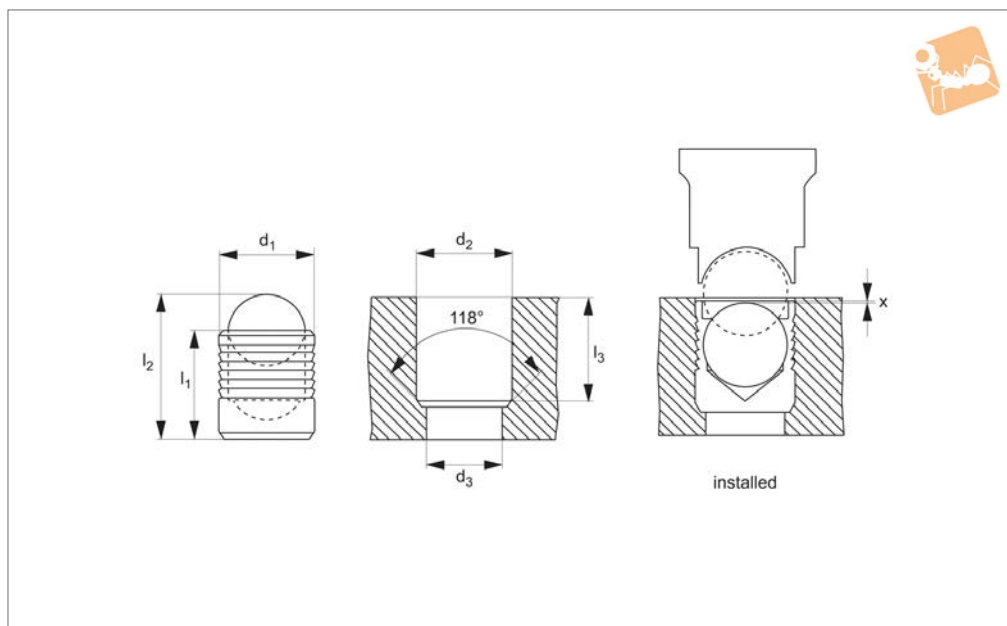
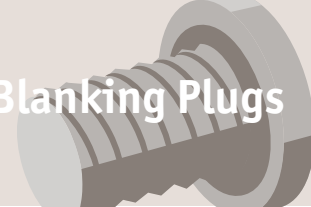




Expansion Sealing Plugs

Metric - standard

Blanking Plugs



P0190

BLANKING PLUGS

Material

Plug body: case hardened steel (zinc-plated), stainless steel (A2, AISI 303 & A4 AISI 316) or aluminium (2024-T4).

Ball: heat-treated bearing steel or stainless steel (A2, AISI 303 & A4 AISI 316).

Technical Notes

These high pressure sealing plugs are used to blank off externally drilled holes for air

and gas.

No need for tapping, reaming, machining of O-ring grooves or the use of tapes or sealants.

Ensure the ball is fully seated before applying pressure.

Tips

Working pressure up to 450 bar (dependent on body material and material into which

installed).

Please consult technical pages for installation instructions and performance data.

Important Notes

Please refer to technical pages for product installation details.

Order No.	d ₁	l ₁	l ₂	d ₂ +0.1 -0.0	d ₃ max.	l ₃ min.	x ±0.2	Body	Ball
P0190.030-ZP-BS	3.0	3.6	4.6	3.0	2.2	3.4	0.4	Steel ZP	Steel
P0190.040-ZP-BS	4.0	4.0	5.2	4.0	3.3	3.8	0.2	Steel ZP	Steel
P0190.050-ZP-BS	5.0	5.5	7.1	5.0	4.3	5.3	0.4	Steel ZP	Steel
P0190.060-ZP-BS	6.0	6.5	8.7	6.0	5.3	6.3	0.4	Steel ZP	Steel
P0190.070-ZP-BS	7.0	7.5	10.2	7.0	6.4	7.3	0.4	Steel ZP	Steel
P0190.080-ZP-BS	8.0	8.5	11.6	8.0	7.4	8.3	0.3	Steel ZP	Steel
P0190.090-ZP-BS	9.0	10.0	13.6	9.0	8.4	9.8	0.4	Steel ZP	Steel
P0190.100-ZP-BS	10.0	11.0	15.2	10.0	9.4	10.8	0.4	Steel ZP	Steel
P0190.120-ZP-BS	12.0	13.0	17.9	12.0	10.6	12.8	0.4	Steel ZP	Steel
P0190.140-ZP-BS	14.0	15.0	20.6	14.0	12.7	14.5	0.4	Steel ZP	Steel
P0190.160-ZP-BS	16.0	17.0	23.4	16.0	14.7	16.5	0.6	Steel ZP	Steel
P0190.180-ZP-BS	18.0	19.0	26.4	18.0	16.7	18.5	0.6	Steel ZP	Steel
P0190.200-ZP-BS	20.0	22.0	30.1	20.0	18.7	21.5	0.8	Steel ZP	Steel
P0190.220-ZP-BS	22.0	25.0	34.0	22.0	20.7	24.5	0.8	Steel ZP	Steel
P0190.030-A2-BS	3.0	3.6	4.6	3.0	2.2	3.4	0.4	A2 s/s	Steel
P0190.040-A2-BS	4.0	4.0	5.2	4.0	3.3	3.8	0.2	A2 s/s	Steel
P0190.050-A2-BS	5.0	5.5	7.1	5.0	4.3	5.3	0.4	A2 s/s	Steel
P0190.060-A2-BS	6.0	6.5	8.7	6.0	5.3	6.3	0.4	A2 s/s	Steel
P0190.070-A2-BS	7.0	7.5	10.2	7.0	6.4	7.3	0.4	A2 s/s	Steel
P0190.080-A2-BS	8.0	8.5	11.6	8.0	7.4	8.3	0.3	A2 s/s	Steel
P0190.090-A2-BS	9.0	10.0	13.6	9.0	8.4	9.8	0.4	A2 s/s	Steel
P0190.100-A2-BS	10.0	11.0	15.2	10.0	9.4	10.8	0.4	A2 s/s	Steel
P0190.120-A2-BS	12.0	13.0	17.9	12.0	10.6	12.8	0.4	A2 s/s	Steel
P0190.140-A2-BS	14.0	15.0	20.6	14.0	12.7	14.5	0.4	A2 s/s	Steel
P0190.160-A2-BS	16.0	17.0	23.4	16.0	14.7	16.5	0.6	A2 s/s	Steel
P0190.180-A2-BS	18.0	19.0	26.4	18.0	16.7	18.5	0.6	A2 s/s	Steel
P0190.200-A2-BS	20.0	22.0	30.1	20.0	18.7	21.5	0.8	A2 s/s	Steel
P0190.220-A2-BS	22.0	25.0	34.0	22.0	20.7	24.5	0.8	A2 s/s	Steel



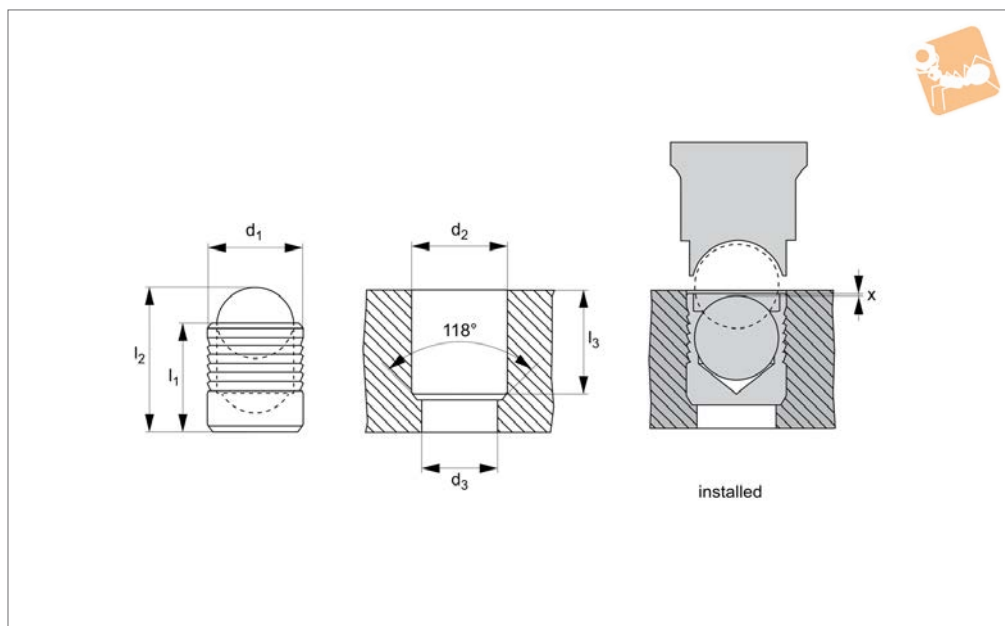
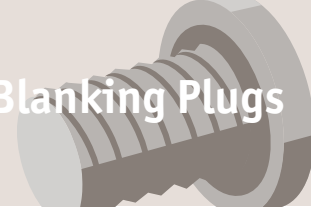
Order No.	d ₁	l ₁	l ₂	d ₂ +0.1 -0.0	d ₃ max.	l ₃ min.	x ±0.2	Body	Ball
P0190.030-A4-A4	3.0	3.6	4.6	3.0	2.2	3.4	0.4	A4 s/s	A4 s/s
P0190.040-A4-A4	4.0	4.0	5.2	4.0	3.3	3.8	0.2	A4 s/s	A4 s/s
P0190.050-A4-A4	5.0	5.5	7.1	5.0	4.3	5.3	0.4	A4 s/s	A4 s/s
P0190.060-A4-A4	6.0	6.5	8.7	6.0	5.3	6.3	0.4	A4 s/s	A4 s/s
P0190.070-A4-A4	7.0	7.5	10.2	7.0	6.4	7.3	0.4	A4 s/s	A4 s/s
P0190.080-A4-A4	8.0	8.5	11.6	8.0	7.4	8.3	0.3	A4 s/s	A4 s/s
P0190.090-A4-A4	9.0	10.0	13.6	9.0	8.4	9.8	0.4	A4 s/s	A4 s/s
P0190.100-A4-A4	10.0	11.0	15.2	10.0	9.4	10.8	0.4	A4 s/s	A4 s/s
P0190.120-A4-A4	12.0	13.0	17.9	12.0	10.6	12.8	0.4	A4 s/s	A4 s/s
P0190.140-A4-A4	14.0	15.0	20.6	14.0	12.7	14.5	0.4	A4 s/s	A4 s/s
P0190.160-A4-A4	16.0	17.0	23.4	16.0	14.7	16.5	0.6	A4 s/s	A4 s/s
P0190.180-A4-A4	18.0	19.0	26.4	18.0	16.7	18.5	0.6	A4 s/s	A4 s/s
P0190.200-A4-A4	20.0	22.0	30.1	20.0	18.7	21.5	0.8	A4 s/s	A4 s/s
P0190.220-A4-A4	22.0	25.0	34.0	22.0	20.7	24.5	0.8	A4 s/s	A4 s/s
P0190.030-AL-A2	3.0	3.6	4.6	3.0	2.2	3.4	0.4	Aluminium	A2 s/s
P0190.040-AL-A2	4.0	4.0	5.2	4.0	3.3	3.8	0.2	Aluminium	A2 s/s
P0190.050-AL-A2	5.0	5.5	7.1	5.0	4.3	5.3	0.4	Aluminium	A2 s/s
P0190.060-AL-A2	6.0	6.5	8.7	6.0	5.3	6.3	0.4	Aluminium	A2 s/s
P0190.070-AL-A2	7.0	7.5	10.2	7.0	6.4	7.3	0.4	Aluminium	A2 s/s
P0190.080-AL-A2	8.0	8.5	11.6	8.0	7.4	8.3	0.3	Aluminium	A2 s/s
P0190.090-AL-A2	9.0	10.0	13.6	9.0	8.4	9.8	0.4	Aluminium	A2 s/s
P0190.100-AL-A2	10.0	11.0	15.2	10.0	9.4	10.8	0.4	Aluminium	A2 s/s
P0190.120-AL-A2	12.0	13.0	17.9	12.0	10.6	12.8	0.4	Aluminium	A2 s/s
P0190.140-AL-A2	14.0	15.0	20.6	14.0	12.7	14.5	0.4	Aluminium	A2 s/s
P0190.160-AL-A2	16.0	17.0	23.4	16.0	14.7	16.5	0.6	Aluminium	A2 s/s
P0190.180-AL-A2	18.0	19.0	26.4	18.0	16.7	18.5	0.6	Aluminium	A2 s/s
P0190.200-AL-A2	20.0	22.0	30.1	20.0	18.7	21.5	0.8	Aluminium	A2 s/s
P0190.220-AL-A2	22.0	25.0	34.0	22.0	20.7	24.5	0.8	Aluminium	A2 s/s
P0190.030-A2-A2	3.0	3.6	4.6	3.0	2.2	3.4	0.4	A2 s/s	A2 s/s
P0190.040-A2-A2	4.0	4.0	5.2	4.0	3.3	3.8	0.2	A2 s/s	A2 s/s
P0190.050-A2-A2	5.0	5.5	7.1	5.0	4.3	5.3	0.4	A2 s/s	A2 s/s
P0190.060-A2-A2	6.0	6.5	8.7	6.0	5.3	6.3	0.4	A2 s/s	A2 s/s
P0190.070-A2-A2	7.0	7.5	10.2	7.0	6.4	7.3	0.4	A2 s/s	A2 s/s
P0190.080-A2-A2	8.0	8.5	11.6	8.0	7.4	8.3	0.3	A2 s/s	A2 s/s
P0190.090-A2-A2	9.0	10.0	13.6	9.0	8.4	9.8	0.4	A2 s/s	A2 s/s
P0190.100-A2-A2	10.0	11.0	15.2	10.0	9.4	10.8	0.4	A2 s/s	A2 s/s
P0190.120-A2-A2	12.0	13.0	17.9	12.0	10.6	12.8	0.4	A2 s/s	A2 s/s
P0190.140-A2-A2	14.0	15.0	20.6	14.0	12.7	14.5	0.4	A2 s/s	A2 s/s
P0190.160-A2-A2	16.0	17.0	23.4	16.0	14.7	16.5	0.6	A2 s/s	A2 s/s
P0190.180-A2-A2	18.0	19.0	26.4	18.0	16.7	18.5	0.6	A2 s/s	A2 s/s
P0190.200-A2-A2	20.0	22.0	30.1	20.0	18.7	21.5	0.8	A2 s/s	A2 s/s
P0190.220-A2-A2	22.0	25.0	34.0	22.0	20.7	24.5	0.8	A2 s/s	A2 s/s



Expansion Sealing Plugs - Inch

Inch - short

Blanking Plugs



P0191

BLANKING PLUGS

Material

Plug body: case hardened steel (zinc-plated), stainless steel (A2, AISI 303 & A4 AISI 316) or aluminium (2024-T4).

Ball: heat-treated bearing steel or stainless steel (A2, AISI 303 & A4 AISI 316).

Technical Notes

These high pressure sealing plugs are used to blank off externally drilled holes for air

and gas.

No need for tapping, reaming, machining of O-ring grooves or the use of tapes or sealants.

Ensure the ball is fully seated before applying pressure.

Dimensions in inches.

Tips

Working pressure up to 450 bar (dependent

on body material and material into which installed).

Please consult technical pages for installation instructions and performance data.

Important Notes

Please refer to technical pages for product installation details.

Order No.	d ₁	l ₁	l ₂	d ₂ +0.004 -0.000	d ₃ max.	l ₃ min.	x +0.0 -0.010	Body	Ball
P0191.093-ZP-BS	0.0937	0.098	0.12	0.0937	0.070	0.081	0.010	Steel ZP	Steel
P0191.125-ZP-BS	0.1250	0.125	0.16	0.1250	0.100	0.113	0.010	Steel ZP	Steel
P0191.156-ZP-BS	0.1562	0.125	0.17	0.1562	0.130	0.113	0.010	Steel ZP	Steel
P0191.187-ZP-BS	0.1875	0.187	0.24	0.1875	0.160	0.170	0.010	Steel ZP	Steel
P0191.218-ZP-BS	0.2187	0.187	0.25	0.2187	0.190	0.170	0.010	Steel ZP	Steel
P0191.250-ZP-BS	0.2500	0.225	0.30	0.2500	0.220	0.196	0.010	Steel ZP	Steel
P0191.281-ZP-BS	0.2812	0.225	0.35	0.2812	0.250	0.233	0.010	Steel ZP	Steel
P0191.312-ZP-BS	0.3125	0.280	0.39	0.3125	0.281	0.255	0.010	Steel ZP	Steel
P0191.343-ZP-BS	0.3437	0.307	0.43	0.3437	0.312	0.275	0.010	Steel ZP	Steel
P0191.406-ZP-BS	0.4062	0.365	0.52	0.4062	0.375	0.308	0.010	Steel ZP	Steel
P0191.093-A2-BS	0.0937	0.098	0.12	0.0937	0.070	0.081	0.010	A2 s/s	Steel
P0191.125-A2-BS	0.1250	0.125	0.16	0.1250	0.100	0.113	0.010	A2 s/s	Steel
P0191.156-A2-BS	0.1562	0.125	0.17	0.1562	0.130	0.113	0.010	A2 s/s	Steel
P0191.187-A2-BS	0.1875	0.187	0.24	0.1875	0.160	0.170	0.010	A2 s/s	Steel
P0191.218-A2-BS	0.2187	0.187	0.25	0.2187	0.190	0.170	0.010	A2 s/s	Steel
P0191.250-A2-BS	0.2500	0.225	0.30	0.2500	0.220	0.196	0.010	A2 s/s	Steel
P0191.281-A2-BS	0.2812	0.225	0.35	0.2812	0.250	0.233	0.010	A2 s/s	Steel
P0191.312-A2-BS	0.3125	0.280	0.39	0.3125	0.281	0.255	0.010	A2 s/s	Steel
P0191.343-A2-BS	0.3437	0.307	0.43	0.3437	0.312	0.275	0.010	A2 s/s	Steel
P0191.406-A2-BS	0.4062	0.365	0.52	0.4062	0.375	0.308	0.010	A2 s/s	Steel
P0191.093-A2-A2	0.0937	0.098	0.12	0.0937	0.070	0.081	0.010	A2 s/s	A2 s/s
P0191.125-A2-A2	0.1250	0.125	0.16	0.1250	0.100	0.113	0.010	A2 s/s	A2 s/s
P0191.156-A2-A2	0.1562	0.125	0.17	0.1562	0.130	0.113	0.010	A2 s/s	A2 s/s
P0191.187-A2-A2	0.1875	0.187	0.24	0.1875	0.160	0.170	0.010	A2 s/s	A2 s/s
P0191.218-A2-A2	0.2187	0.187	0.25	0.2187	0.190	0.170	0.010	A2 s/s	A2 s/s
P0191.250-A2-A2	0.2500	0.225	0.30	0.2500	0.220	0.196	0.010	A2 s/s	A2 s/s
P0191.281-A2-A2	0.2812	0.225	0.35	0.2812	0.250	0.233	0.010	A2 s/s	A2 s/s
P0191.312-A2-A2	0.3125	0.280	0.39	0.3125	0.281	0.255	0.010	A2 s/s	A2 s/s



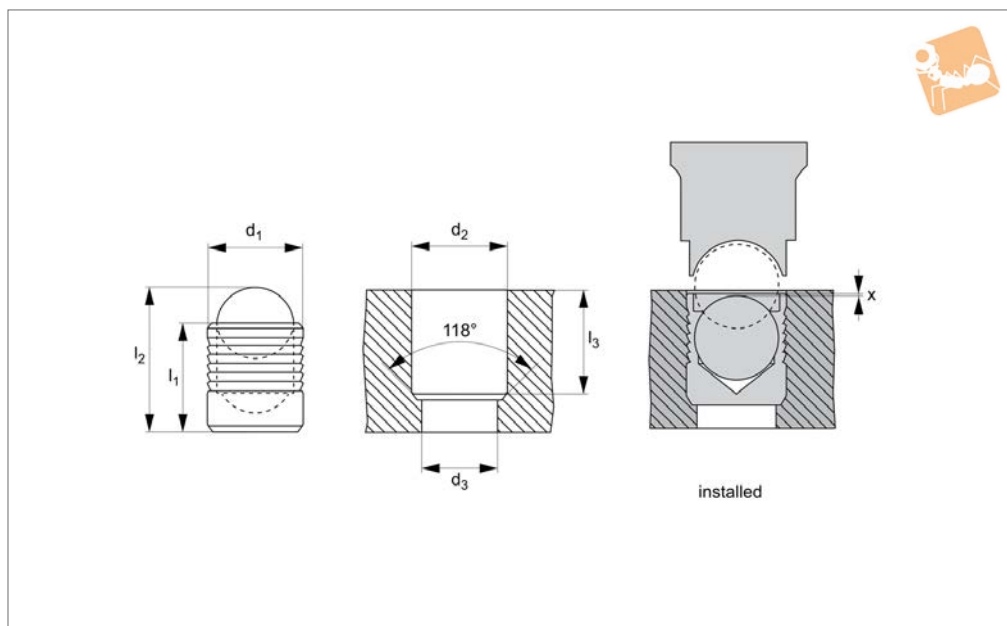
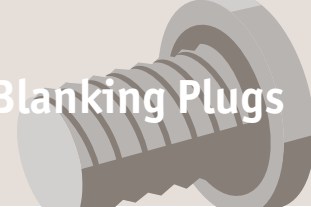
Order No.	d ₁	l ₁	l ₂	d ₂ +0.004 -0.000	d ₃ max.	l ₃ min.	x +0.0 -0.010	Body	Ball
P0191.343-A2-A2	0.3437	0.307	0.43	0.3437	0.312	0.275	0.010	A2 s/s	A2 s/s
P0191.406-A2-A2	0.4062	0.365	0.52	0.4062	0.375	0.308	0.010	A2 s/s	A2 s/s
P0191.093-A4-A4	0.0937	0.098	0.12	0.0937	0.070	0.081	0.010	A4 s/s	A4 s/s
P0191.125-A4-A4	0.1250	0.125	0.16	0.1250	0.100	0.113	0.010	A4 s/s	A4 s/s
P0191.156-A4-A4	0.1562	0.125	0.17	0.1562	0.130	0.113	0.010	A4 s/s	A4 s/s
P0191.187-A4-A4	0.1875	0.187	0.24	0.1875	0.160	0.170	0.010	A4 s/s	A4 s/s
P0191.218-A4-A4	0.2187	0.187	0.25	0.2187	0.190	0.170	0.010	A4 s/s	A4 s/s
P0191.250-A4-A4	0.2500	0.225	0.30	0.2500	0.220	0.196	0.010	A4 s/s	A4 s/s
P0191.281-A4-A4	0.2812	0.225	0.35	0.2812	0.250	0.233	0.010	A4 s/s	A4 s/s
P0191.312-A4-A4	0.3125	0.280	0.39	0.3125	0.281	0.255	0.010	A4 s/s	A4 s/s
P0191.343-A4-A4	0.3437	0.307	0.43	0.3437	0.312	0.275	0.010	A4 s/s	A4 s/s
P0191.406-A4-A4	0.4062	0.365	0.52	0.4062	0.375	0.308	0.010	A4 s/s	A4 s/s
P0191.093-AL-A2	0.0937	0.098	0.12	0.0937	0.070	0.081	0.010	Aluminium	A2 s/s
P0191.125-AL-A2	0.1250	0.125	0.16	0.1250	0.100	0.113	0.010	Aluminium	A2 s/s
P0191.156-AL-A2	0.1562	0.125	0.17	0.1562	0.130	0.113	0.010	Aluminium	A2 s/s
P0191.187-AL-A2	0.1875	0.187	0.24	0.1875	0.160	0.170	0.010	Aluminium	A2 s/s
P0191.218-AL-A2	0.2187	0.187	0.25	0.2187	0.190	0.170	0.010	Aluminium	A2 s/s
P0191.250-AL-A2	0.2500	0.225	0.30	0.2500	0.220	0.196	0.010	Aluminium	A2 s/s
P0191.281-AL-A2	0.2812	0.225	0.35	0.2812	0.250	0.233	0.010	Aluminium	A2 s/s
P0191.312-AL-A2	0.3125	0.280	0.39	0.3125	0.281	0.255	0.010	Aluminium	A2 s/s
P0191.343-AL-A2	0.3437	0.307	0.43	0.3437	0.312	0.275	0.010	Aluminium	A2 s/s
P0191.406-AL-A2	0.4062	0.365	0.52	0.4062	0.375	0.308	0.010	Aluminium	A2 s/s



Expansion Sealing Plugs - Inch

Inch - standard

Blanking Plugs



P0192

BLANKING PLUGS

Material

Plug body: case hardened steel (zinc-plated), stainless steel (A2, AISI 303 & A4 AISI 316) or aluminium (2024-T4).

Ball: heat-treated bearing steel or stainless steel (A2, AISI 303 & A4 AISI 316).

Technical Notes

These high pressure sealing plugs are used to blank off externally drilled holes for air

and gas.

No need for tapping, reaming, machining of O-ring grooves or the use of tapes or sealants.

Ensure the ball is fully seated before applying pressure.

Dimensions in inches.

Tips

Working pressure up to 450 bar (dependent

on body material and material into which installed).

Please consult technical pages for installation instructions and performance data.

Important Notes

Please refer to technical pages for product installation details.

Order No.	d ₁	l ₁	l ₂	d ₂ +0.004 -0.000	d ₃ max.	l ₃ min.	x +0.0 -0.010	Body	Ball
P0192.156-ZP-BS	0.1562	0.157	0.21	0.1562	0.130	0.150	0.010	Steel ZP	Steel
P0192.187-ZP-BS	0.1875	0.216	0.28	0.1875	0.160	0.209	0.010	Steel ZP	Steel
P0192.218-ZP-BS	0.2187	0.220	0.28	0.2187	0.190	0.208	0.010	Steel ZP	Steel
P0192.250-ZP-BS	0.2500	0.256	0.34	0.2500	0.220	0.248	0.010	Steel ZP	Steel
P0192.281-ZP-BS	0.2812	0.295	0.40	0.2812	0.250	0.287	0.010	Steel ZP	Steel
P0192.312-ZP-BS	0.3125	0.334	0.46	0.3125	0.281	0.327	0.010	Steel ZP	Steel
P0192.343-ZP-BS	0.3437	0.394	0.53	0.3437	0.312	0.385	0.010	Steel ZP	Steel
P0192.375-ZP-BS	0.3750	0.433	0.60	0.3750	0.343	0.425	0.010	Steel ZP	Steel
P0192.406-ZP-BS	0.4062	0.437	0.59	0.4062	0.375	0.425	0.010	Steel ZP	Steel
P0192.437-ZP-BS	0.4375	0.515	0.68	0.4375	0.406	0.503	0.010	Steel ZP	Steel
P0192.468-ZP-BS	0.4687	0.512	0.71	0.4687	0.437	0.504	0.010	Steel ZP	Steel
P0192.156-A2-BS	0.1562	0.157	0.21	0.1562	0.130	0.150	0.010	A2 s/s	Steel
P0192.187-A2-BS	0.1875	0.216	0.28	0.1875	0.160	0.209	0.010	A2 s/s	Steel
P0192.218-A2-BS	0.2187	0.220	0.28	0.2187	0.190	0.208	0.010	A2 s/s	Steel
P0192.250-A2-BS	0.2500	0.256	0.34	0.2500	0.220	0.248	0.010	A2 s/s	Steel
P0192.281-A2-BS	0.2812	0.295	0.40	0.2812	0.250	0.287	0.010	A2 s/s	Steel
P0192.312-A2-BS	0.3125	0.334	0.46	0.3125	0.281	0.327	0.010	A2 s/s	Steel
P0192.343-A2-BS	0.3437	0.394	0.53	0.3437	0.312	0.385	0.010	A2 s/s	Steel
P0192.375-A2-BS	0.3750	0.433	0.60	0.3750	0.343	0.425	0.010	A2 s/s	Steel
P0192.406-A2-BS	0.4062	0.437	0.59	0.4062	0.375	0.425	0.010	A2 s/s	Steel
P0192.437-A2-BS	0.4375	0.515	0.68	0.4375	0.406	0.503	0.010	A2 s/s	Steel
P0192.468-A2-BS	0.4687	0.512	0.71	0.4687	0.437	0.504	0.010	A2 s/s	Steel
P0192.156-A2-A2	0.1562	0.157	0.21	0.1562	0.130	0.150	0.010	A2 s/s	A2 s/s
P0192.187-A2-A2	0.1875	0.216	0.28	0.1875	0.160	0.209	0.010	A2 s/s	A2 s/s
P0192.218-A2-A2	0.2187	0.220	0.28	0.2187	0.190	0.208	0.010	A2 s/s	A2 s/s
P0192.250-A2-A2	0.2500	0.256	0.34	0.2500	0.220	0.248	0.010	A2 s/s	A2 s/s
P0192.281-A2-A2	0.2812	0.295	0.40	0.2812	0.250	0.287	0.010	A2 s/s	A2 s/s
P0192.312-A2-A2	0.3125	0.334	0.46	0.3125	0.281	0.327	0.010	A2 s/s	A2 s/s



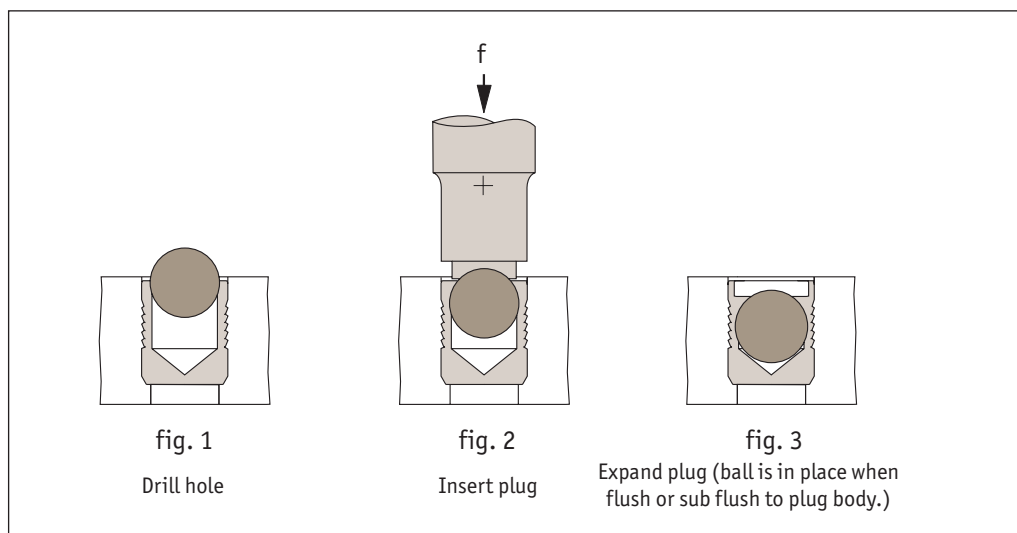
Order No.	d ₁	l ₁	l ₂	d ₂ +0.004 -0.000	d ₃ max.	l ₃ min.	x +0.0 -0.010	Body	Ball
P0192.343-A2-A2	0.3437	0.394	0.53	0.3437	0.312	0.385	0.010	A2 s/s	A2 s/s
P0192.375-A2-A2	0.3750	0.433	0.60	0.3750	0.343	0.425	0.010	A2 s/s	A2 s/s
P0192.406-A2-A2	0.4062	0.437	0.59	0.4062	0.375	0.425	0.010	A2 s/s	A2 s/s
P0192.437-A2-A2	0.4375	0.515	0.68	0.4375	0.406	0.503	0.010	A2 s/s	A2 s/s
P0192.468-A2-A2	0.4687	0.512	0.71	0.4687	0.437	0.504	0.010	A2 s/s	A2 s/s
P0192.156-A4-A4	0.1562	0.157	0.21	0.1562	0.130	0.150	0.010	A4 s/s	A4 s/s
P0192.187-A4-A4	0.1875	0.216	0.28	0.1875	0.160	0.209	0.010	A4 s/s	A4 s/s
P0192.218-A4-A4	0.2187	0.220	0.28	0.2187	0.190	0.208	0.010	A4 s/s	A4 s/s
P0192.250-A4-A4	0.2500	0.256	0.34	0.2500	0.220	0.248	0.010	A4 s/s	A4 s/s
P0192.281-A4-A4	0.2812	0.295	0.40	0.2812	0.250	0.287	0.010	A4 s/s	A4 s/s
P0192.312-A4-A4	0.3125	0.334	0.46	0.3125	0.281	0.327	0.010	A4 s/s	A4 s/s
P0192.343-A4-A4	0.3437	0.394	0.53	0.3437	0.312	0.385	0.010	A4 s/s	A4 s/s
P0192.406-A4-A4	0.4062	0.437	0.59	0.4062	0.375	0.425	0.010	A4 s/s	A4 s/s
P0192.437-A4-A4	0.4375	0.515	0.68	0.4375	0.406	0.503	0.010	A4 s/s	A4 s/s
P0192.468-A4-A4	0.4687	0.512	0.71	0.4687	0.437	0.504	0.010	A4 s/s	A4 s/s
P0192.156-AL-A2	0.1562	0.157	0.21	0.1562	0.130	0.150	0.010	Aluminium	A2 s/s
P0192.187-AL-A2	0.1875	0.216	0.28	0.1875	0.160	0.209	0.010	Aluminium	A2 s/s
P0192.218-AL-A2	0.2187	0.220	0.28	0.2187	0.190	0.208	0.010	Aluminium	A2 s/s
P0192.250-AL-A2	0.2500	0.256	0.34	0.2500	0.220	0.248	0.010	Aluminium	A2 s/s
P0192.281-AL-A2	0.2812	0.295	0.40	0.2812	0.250	0.287	0.010	Aluminium	A2 s/s
P0192.312-AL-A2	0.3125	0.334	0.46	0.3125	0.281	0.327	0.010	Aluminium	A2 s/s
P0192.343-AL-A2	0.3437	0.394	0.53	0.3437	0.312	0.385	0.010	Aluminium	A2 s/s
P0192.375-AL-A2	0.3750	0.433	0.60	0.3750	0.343	0.425	0.010	Aluminium	A2 s/s
P0192.406-AL-A2	0.4062	0.437	0.59	0.4062	0.375	0.425	0.010	Aluminium	A2 s/s
P0192.437-AL-A2	0.4375	0.515	0.68	0.4375	0.406	0.503	0.010	Aluminium	A2 s/s
P0192.468-AL-A2	0.4687	0.512	0.71	0.4687	0.437	0.504	0.010	Aluminium	A2 s/s



Hydraulic and pneumatic components and systems are often cross-drilled to provide the correct channels for air and gas. Some of these channels have to be drilled from the outside and later need to be closed off (plugged).

The expansions sealing plugs are inserted into a drilled hole and the expander ball is driven into the plug sleeve. The independent grooved sealing rings on the plug ball are driven into the housing material to permanently plug and seal the hole. The ball is retained in place.

No need for tapping or reaming, no machining of O ring grooves or the use of tapes or sealants. To seal a hole, follow this procedure:



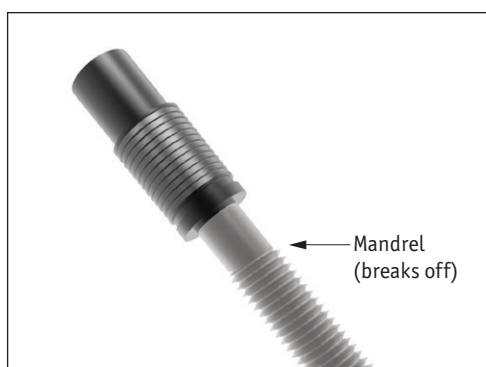
Applications

Some of the typical applications for our sealing screws include:

- Pneumatics
- Hydraulics
- Fluid Power
- Automation
- Industrial
- Aerospace
- Valves
- Regulators
- Cylinders



"Standard" Expansion sealing plugs - push the ball which expands the sleeve and seals the channel.



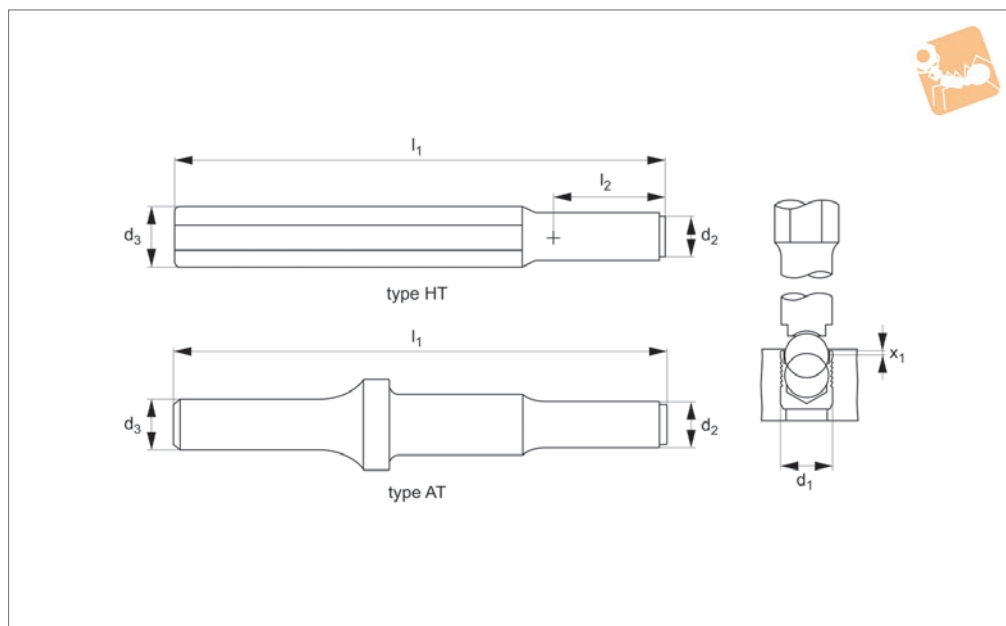
"Pull" Expansion sealing plugs. Pulling on the mandrel expands the sleeve, sealing the channel. At a predetermined force the mandrel breaks off.

Sealing Plugs from Automotion Components

BLANKING PLUGS



P0193



Material

Tool steel, heat-treated.

Technical Notes

Please consult technical pages for installa-

tion instructions and performance data.

Hand tool version and air tool (for multiple installations).

Ensure the ball is fully seated before

applying pressure.

Tips

Metric dimensions in mm.

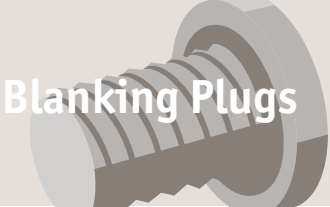
Inch dimensions in inches.

Order No.	d ₁	d ₂	d ₃	l ₁	l ₂	x ±0.2	Type
P0193.030-HT	3.0	2.8	9.53	127	10	0.4	Hand
P0193.040-HT	4.0	3.8	9.53	127	10	0.2	Hand
P0193.050-HT	5.0	4.7	9.53	127	12	0.4	Hand
P0193.060-HT	6.0	5.8	9.53	127	15	0.4	Hand
P0193.070-HT	7.0	6.8	9.53	127	18	0.4	Hand
P0193.080-HT	8.0	7.8	9.53	127	20	0.3	Hand
P0193.090-HT	9.0	8.7	15.88	127	22	0.4	Hand
P0193.100-HT	10.0	9.8	15.88	127	25	0.4	Hand
P0193.120-HT	12.0	11.7	15.88	127	30	0.4	Hand
P0193.140-HT	14.0	13.7	19.05	127	35	0.4	Hand
P0193.160-HT	16.0	15.7	19.05	127	40	0.6	Hand
P0193.180-HT	18.0	17.7	19.05	127	45	0.6	Hand
P0193.200-HT	20.0	19.7	25.40	127	50	0.8	Hand
P0193.220-HT	22.0	21.7	25.40	127	55	0.8	Hand
P0193.093-HT	0,093"	0,082"	0,394"	3,94"	0,137"	0,010"	Hand
P0193.125-HT	0,125"	0,117"	0,394"	3,94"	0,137"	0,010"	Hand
P0193.156-HT	0,156"	0,148"	0,394"	3,94"	0,137"	0,010"	Hand
P0193.187-HT	0,187"	0,180"	0,394"	3,94"	0,137"	0,010"	Hand
P0193.218-HT	0,218"	0,211"	0,394"	3,94"	0,400"	0,010"	Hand
P0193.250-HT	0,250"	0,242"	0,394"	3,94"	0,400"	0,010"	Hand
P0193.281-HT	0,281"	0,273"	0,394"	3,94"	0,400"	0,010"	Hand
P0193.030-AT	3.0	2.8	10.19	100	0.4	0.4	Air
P0193.040-AT	4.0	3.8	10.19	100	0.2	0.2	Air
P0193.050-AT	5.0	4.7	10.19	100	0.4	0.4	Air
P0193.060-AT	6.0	5.8	10.19	100	0.4	0.4	Air
P0193.070-AT	7.0	6.8	10.19	100	0.4	0.4	Air
P0193.080-AT	8.0	7.8	10.19	100	0.3	0.3	Air
P0193.090-AT	9.0	8.7	10.19	100	0.4	0.4	Air
P0193.100-AT	10.0	9.8	10.19	100	0.4	0.4	Air
P0193.120-AT	12.0	11.7	10.19	100	0.4	0.4	Air
P0193.140-AT	14.0	13.7	10.19	100	0.4	0.4	Air
P0193.160-AT	16.0	15.7	10.19	100	0.6	0.6	Air
P0193.180-AT	18.0	17.7	10.19	100	0.6	0.6	Air
P0193.200-AT	20.0	19.7	10.19	100	0.8	0.8	Air



Setting Tool for Sealing Plugs

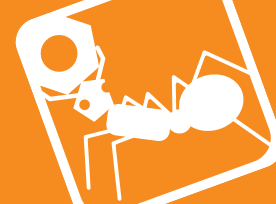
for expansion plugs



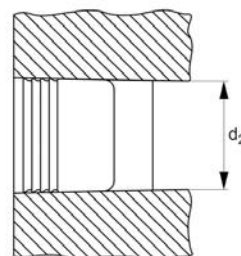
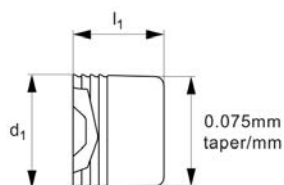
Blanking Plugs

Order No.	d ₁	d ₂	d ₃	l ₁	l ₂	x ±0.2	Type
P0193.220-AT	22.0	21.7	10.19	100	0.8	0.8	Air

BLANKING PLUGS



P0194



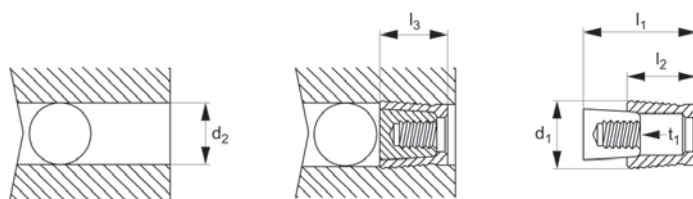
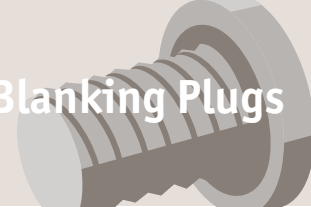
Material
Aluminium (6061).

a 0.075mm/mm taper over their length.
Burst pressure 35 bar (500 psi).

Technical Notes

These are high pressure sealing plugs with

Order No.	d ₁	d ₂ max.	l ₁	Size
P0194.070	7.01	6.50	5.5	7
P0194.090	9.01	8.38	5.5	9
P0194.110	11.03	10.39	5.5	11
P0194.130	13.03	12.40	5.5	13
P0194.160	16.08	15.39	5.5	16



P0195

BLANKING PLUGS

Material

Sleeve: case-hardened steel, black oxide finish.

Pin: heat-treatable steel, black oxide finish.

to blank off externally drilled holes for air and gas.

No need for tapping, reaming, machining of O-ring grooves or the use of tapes or sealants.

product installation details.

Technical Notes

These high pressure sealing plugs are used

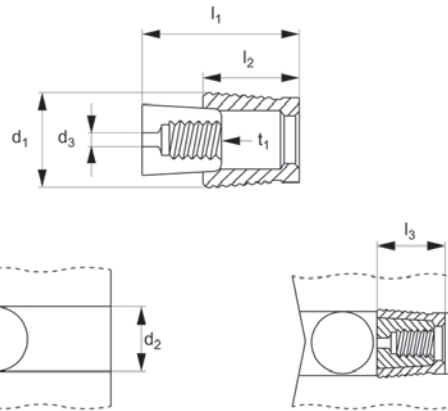
Important Notes

Please refer to technical pages for

Order No.	d_1	d_2 $+0.1/-0.0$	l_1	l_2	l_3	t_1
P0195.070	7.0	7.0	13.0	7.5	8.0	4-40 UNC
P0195.080	8.0	8.0	14.0	8.5	9.0	6-32 UNC
P0195.090	9.0	9.0	16.0	9.5	10.0	8-32 UNC
P0195.100	10.0	10.0	18.0	10.5	11.0	10-32 UNC
P0195.120	12.0	12.0	21.0	12.5	13.0	10-32 UNC
P0195.140	14.0	14.0	25.0	14.5	15.0	1/4-20 UNC
P0195.160	16.0	16.0	28.0	16.5	17.0	1/4-20 UNC
P0195.180	18.0	18.0	31.5	18.5	19.0	5/16-18 UNC
P0195.200	20.0	20.0	35.0	20.5	21.0	3/8-16 UNC
P0195.220	22.0	22.0	38.5	22.5	23.0	3/8-16 UNC



P0196



Material

Sleeve: case-hardened steel, black oxide finish.

Pin: heat-treatable steel, black oxide finish.

Technical Notes

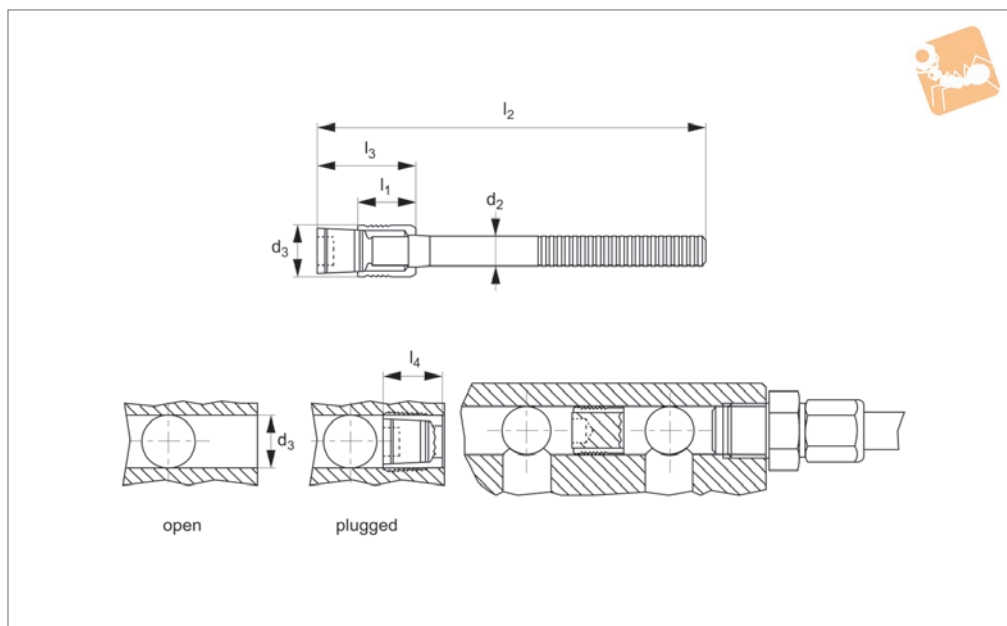
Select the bore size and d_3 required (in inches).

eg. P0196.070-030 is a 7mm pull plug restrictor with 0.030" orifice.

Important Notes

Please refer to technical pages for product installation details.

Order No.	d_1	d_2 +0.1 -0.0	d_3 inch	l_1	l_2	l_3	t_1
P0196.070-xxx	7.0	7.0	0,012-0,13	13.0	7.5	8.0	4-40 UNC
P0196.080-xxx	8.0	8.0	0,012-0,15	14.0	8.5	9.0	6-32 UNC
P0196.090-xxx	9.0	9.0	0,012-0,17	16.0	9.5	10.0	8-32 UNC
P0196.100-xxx	10.0	10.0	0,012-0,20	18.0	10.5	11.0	10-32 UNC
P0196.120-xxx	12.0	12.0	0,012-0,24	21.0	12.5	13.0	10-32 UNC
P0196.140-xxx	14.0	14.0	0,12-0,28	25.0	14.5	15.0	1/4-20 UNC
P0196.160-xxx	16.0	16.0	0,012-0,30	28.0	16.5	17.0	1/4-20 UNC
P0196.180-xxx	18.0	18.0	0,012-0,35	31.5	18.5	19.0	5/16-18 UNC
P0196.200-xxx	20.0	20.0	0,012-0,40	35.0	20.5	21.0	3/8-16 UNC
P0196.220-xxx	22.0	22.0	0,012-0,43	38.5	22.5	23.0	3/8-16 UNC



P0197

BLANKING PLUGS

Material

Sleeve: case-hardened steel, black oxide finish.

Mandrel: heat-treated steel, black oxide finish.

Technical Notes

These high pressure sealing plugs are used to blank off externally drilled holes for air and gas.

No need for tapping, reaming, machining

of O-ring grooves or the use of tapes or sealants.

Short version - with short mandrel.

Long version - with long mandrel.

Tips

Working pressure up to 450 bar (dependent on body material and material into which installed).

Pulling on the mandrel forces the plug insert into the plug body, expanding the

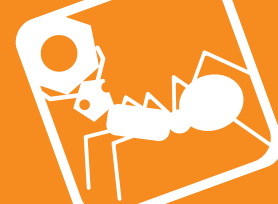
body out to grip on the channel walls.

At a set pressure the mandrel then breaks off and is removed with the plug remaining firmly set inside the bore.

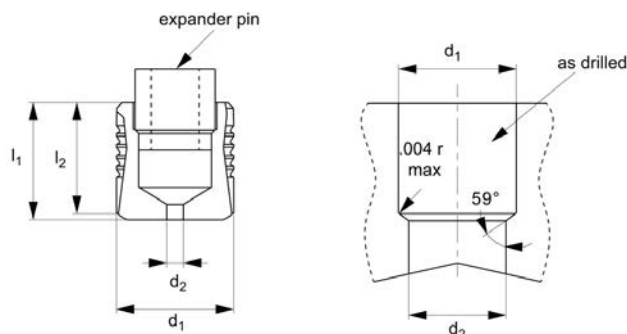
Important Notes

Please refer to technical pages for product installation details.

Order No.	d ₁	d ₂	d ₃ +0.12 -0.0	l ₁	l ₂	l ₃ max.	l ₄ max.	Type
P0197.040-S	4.0	2.50	4.0	4.0	39	9.0	6.5	Short
P0197.050-S	5.0	3.00	5.0	5.5	41	10.0	7.5	Short
P0197.060-S	6.0	3.40	6.0	6.5	43	12.0	8.0	Short
P0197.070-S	7.0	4.10	7.0	7.5	38	14.0	9.0	Short
P0197.080-S	8.0	4.20	8.0	8.5	40	15.0	10.5	Short
P0197.090-S	9.0	4.50	9.0	9.5	43	17.0	11.0	Short



P0198



Material

A2 Stainless steel.

Calibrated hole diameter (d_2).

Technical Notes

For restricting flow.

Select size required then add -xxx which

indicated reduced hole diameter (d_2), eg
P0198.090-015 indicated a 9mm bore size
with a 0.015" orifice.

Tips

Metric dimensions in mm.

Imperial dimensions in inches. (Length

Tolerance $\pm 0,006$)

Important Notes

Please refer to technical pages for
product installation details.

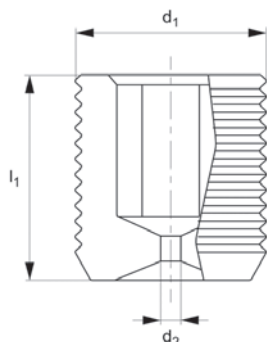
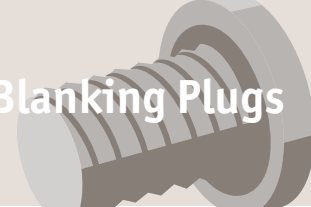
Order No.	d_1 +0	d_2 ± 0.001	d_3 ± 0.010	d_4 max.	l_1 ± 0.010	l_2 ± 0.010	l_3 min.
P0198.040-XXX	4,00 -0,030	0,012-0,015"	4,00	3,3	4,0	3,7	3,8
P0198.050-xxx	5,00 -0,030	0,012-0,075"	5,00	4,3	5,0	5,2	5,3
P0198.060-XXX	6,00 -0,030	0,012-0,100"	6,00	5,3	6,0	6,2	6,3
P0198.070-XXX	7,00 -0,036	0,012-0,130"	7,00	6,2	7,0	7,2	7,3
P0198.080-XXX	8,00 -0,036	0,012-0,150"	8,00	7,2	8,0	8,2	8,3
P0198.090-xxx	9,00 -0,036	0,012-0,170"	9,00	8,2	9,0	9,70	9,8
P0198.100-xxx	10,00 -0,036	0,012-0,195"	10,00	9,2	10,0	10,70	10,8
P0198.120-xxx	12,00 -0,043	0,012-0,240"	12,00	11,0	12,0	12,70	12,8
P0198.140-XXX	14,00 -0,043	0,012-0,280"	14,00	13,0	14,0	14,40	14,5
P0198i.156-xxx	0,1562 -0,0012"	0,012-0,050"	0,1562"	0,130"	0,161"	0,149"	0,149"
P0198i.187-xxx	0,1875 -0,0012"	0,012-0,070"	0,1875"	0,160"	0,220"	0,208"	0,208"
P0198i.218-xxx	0,2187 -0,0012"	0,012-0,085"	0,2187"	0,190"	0,220"	0,208"	0,208"
P0198i.250-xxx	0,2500 -0,0012"	0,012-0,105"	0,2500"	0,220"	0,259"	0,247"	0,247"
P0198i.281-xxx	0,2817 -0,0014"	0,012-0,130"	0,2812"	0,250"	0,299"	0,287"	0,287"
P0198i.312-xxx	0,3125 -0,0014"	0,012-0,150"	0,3125"	0,281"	0,338"	0,326"	0,326"
P0198i.343-xxx	0,3437 -0,0014"	0,012-0,160"	0,3437"	0,312"	0,397"	0,385"	0,385"
P0198i.375-xxx	0,3750 -0,0014"	0,012-0,180"	0,3750"	0,343"	0,397"	0,385"	0,385"
P0198i.406-xxx	0,4062 -0,0014"	0,012-0,195"	0,4062"	0,375"	0,437"	0,425"	0,425"
P0198i.437-xxx	0,4375 -0,0014"	0,012-0,220"	0,4375"	0,406"	0,515"	0,503"	0,503"
P0198i.468-xxx	0,4687 -0,0017"	0,012-0,240"	0,4687"	0,437"	0,515"	0,503"	0,503"
P0198i.562-xxx	0,5625 -0,0017"	0,012-0,290"	0,5625"	0,510"	0,594"	0,570"	0,570"



Metric Threaded Restrictors

Stainless Steel

Blanking Plugs



P0199

BLANKING PLUGS

Material

A2 stainless steel

Technical Notes

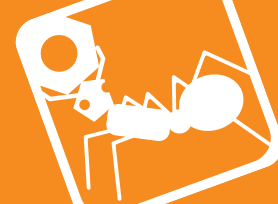
For restricting flow.

Select size required then add -xxx which indicated reduced hole diameter (d_2), eg P0199.080-0150 A2 indicated a 8mm bore size with a 0.38 orifice.

Important Notes

Please refer to technical pages for product installation details.

Order No.	d_1	d_1 nom.	d_2	l_1	A/F
P0199.040-003-A2	M 4x0,7	4	0.30	4	2
P0199.040-004-A2	M 4x0,7	4	0.38	4	2
P0199.040-005-A2	M 4x0,7	4	0.51	4	2
P0199.040-006-A2	M 4x0,7	4	0.61	4	2
P0199.040-007-A2	M 4x0,7	4	0.71	4	2
P0199.040-008-A2	M 4x0,7	4	0.81	4	2
P0199.040-009-A2	M 4x0,7	4	0.89	4	2
P0199.050-003-A2	M 5x0,8	5	0.30	5	2.5
P0199.050-004-A2	M 5x0,8	5	0.38	5	2.5
P0199.050-005-A2	M 5x0,8	5	0.51	5	2.5
P0199.050-006-A2	M 5x0,8	5	0.61	5	2.5
P0199.050-007-A2	M 5x0,8	5	0.71	5	2.5
P0199.050-008-A2	M 5x0,8	5	0.81	5	2.5
P0199.050-009-A2	M 5x0,8	5	0.89	5	2.5
P0199.050-010-A2	M 5x0,8	5	1.02	5	2.5
P0199.050-011-A2	M 5x0,8	5	1.12	5	2.5
P0199.050-012-A2	M 5x0,8	5	1.22	5	2.5
P0199.050-013-A2	M 5x0,8	5	1.27	5	2.5
P0199.050-014-A2	M 5x0,8	5	1.40	5	2.5
P0199.060-003-A2	M 6x1,0	6	0.30	6	3
P0199.060-004-A2	M 6x1,0	6	0.38	6	3
P0199.060-005-A2	M 6x1,0	6	0.51	6	3
P0199.060-006-A2	M 6x1,0	6	0.61	6	3
P0199.060-007-A2	M 6x1,0	6	0.71	6	3
P0199.060-008-A2	M 6x1,0	6	0.81	6	3
P0199.060-009-A2	M 6x1,0	6	0.89	6	3
P0199.060-010-A2	M 6x1,0	6	1.02	6	3
P0199.060-011-A2	M 6x1,0	6	1.12	6	3
P0199.060-012-A2	M 6x1,0	6	1.22	6	3
P0199.060-013-A2	M 6x1,0	6	1.27	6	3
P0199.060-014-A2	M 6x1,0	6	1.40	6	3
P0199.060-015-A2	M 6x1,0	6	1.50	6	3
P0199.060-016-A2	M 6x1,0	6	1.60	6	3
P0199.060-017-A2	M 6x1,0	6	1.70	6	3



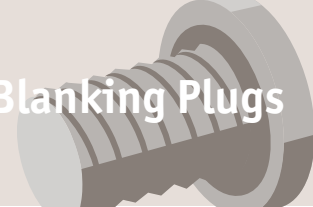
Order No.	d ₁	d ₁ nom.	d ₂	l ₁	A/F
P0199.060-018-A2	M 6x1,0	6	1.80	6	3
P0199.060-019-A2	M 6x1,0	6	1.91	6	3
P0199.080-003-A2	M 8x1,25	8	0.30	8	4
P0199.080-004-A2	M 8x1,25	8	0.38	8	4
P0199.080-005-A2	M 8x1,25	8	0.51	8	4
P0199.080-006-A2	M 8x1,25	8	0.61	8	4
P0199.080-007-A2	M 8x1,25	8	0.71	8	4
P0199.080-008-A2	M 8x1,25	8	0.81	8	4
P0199.080-009-A2	M 8x1,25	8	0.89	8	4
P0199.080-010-A2	M 8x1,25	8	1.02	8	4
P0199.080-011-A2	M 8x1,25	8	1.12	8	4
P0199.080-012-A2	M 8x1,25	8	1.22	8	4
P0199.080-013-A2	M 8x1,25	8	1.27	8	4
P0199.080-014-A2	M 8x1,25	8	1.40	8	4
P0199.080-015-A2	M 8x1,25	8	1.50	8	4
P0199.080-016-A2	M 8x1,25	8	1.60	8	4
P0199.080-017-A2	M 8x1,25	8	1.70	8	4
P0199.080-018-A2	M 8x1,25	8	1.80	8	4
P0199.080-019-A2	M 8x1,25	8	1.91	8	4
P0199.080-020-A2	M 8x1,25	8	1.98	8	4
P0199.080-021-A2	M 8x1,25	8	2.08	8	4
P0199.080-022-A2	M 8x1,25	8	2.16	8	4
P0199.080-023-A2	M 8x1,25	8	2.29	8	4
P0199.080-024-A2	M 8x1,25	8	2.41	8	4
P0199.080-025-A2	M 8x1,25	8	2.54	8	4
P0199.080-026-A2	M 8x1,25	8	2.59	8	4
P0199.080-027-A2	M 8x1,25	8	2.69	8	4
P0199.080-028-A2	M 8x1,25	8	2.79	8	4
P0199.080-029-A2	M 8x1,25	8	2.92	8	4
P0199.100-003-A2	M10x1,5	10	0.30	10	5
P0199.100-004-A2	M10x1,5	10	0.38	10	5
P0199.100-005-A2	M10x1,5	10	0.51	10	5
P0199.100-006-A2	M10x1,5	10	0.61	10	5
P0199.100-007-A2	M10x1,5	10	0.71	10	5
P0199.100-008-A2	M10x1,5	10	0.81	10	5
P0199.100-009-A2	M10x1,5	10	0.89	10	5
P0199.100-010-A2	M10x1,5	10	1.02	10	5
P0199.100-011-A2	M10x1,5	10	1.12	10	5
P0199.100-012-A2	M10x1,5	10	1.22	10	5
P0199.100-013-A2	M10x1,5	10	1.27	10	5
P0199.100-014-A2	M10x1,5	10	1.40	10	5
P0199.100-015-A2	M10x1,5	10	1.50	10	5
P0199.100-016-A2	M10x1,5	10	1.60	10	5
P0199.100-017-A2	M10x1,5	10	1.70	10	5
P0199.100-018-A2	M10x1,5	10	1.80	10	5
P0199.100-019-A2	M10x1,5	10	1.91	10	5
P0199.100-020-A2	M10x1,5	10	1.98	10	5
P0199.100-021-A2	M10x1,5	10	2.08	10	5
P0199.100-022-A2	M10x1,5	10	2.16	10	5
P0199.100-023-A2	M10x1,5	10	2.29	10	5
P0199.100-024-A2	M10x1,5	10	2.41	10	5
P0199.100-025-A2	M10x1,5	10	2.54	10	5
P0199.100-026-A2	M10x1,5	10	2.59	10	5
P0199.100-027-A2	M10x1,5	10	2.69	10	5
P0199.100-028-A2	M10x1,5	10	2.79	10	5
P0199.100-029-A2	M10x1,5	10	2.92	10	5
P0199.100-030-A2	M10x1,5	10	3.00	10	5
P0199.100-031-A2	M10x1,5	10	3.10	10	5
P0199.100-032-A2	M10x1,5	10	3.18	10	5
P0199.100-033-A2	M10x1,5	10	3.30	10	5
P0199.100-034-A2	M10x1,5	10	3.43	10	5
P0199.100-035-A2	M10x1,5	10	3.51	10	5
P0199.100-036-A2	M10x1,5	10	3.58	10	5
P0199.100-037-A2	M10x1,5	10	3.68	10	5
P0199.100-038-A2	M10x1,5	10	3.81	10	5
P0199.100-039-A2	M10x1,5	10	3.91	10	5
P0199.120-003-A2	M12x1,75	12	0.30	12	6
P0199.120-004-A2	M12x1,75	12	0.38	12	6



Metric Threaded Restrictors

Stainless Steel

Blanking Plugs



Order No.	d ₁	d ₁ nom.	d ₂	l ₁	A/F
P0199.120-005-A2	M12x1,75	12	0.51	12	6
P0199.120-006-A2	M12x1,75	12	0.61	12	6
P0199.120-007-A2	M12x1,75	12	0.71	12	6
P0199.120-008-A2	M12x1,75	12	0.81	12	6
P0199.120-009-A2	M12x1,75	12	0.89	12	6
P0199.120-010-A2	M12x1,75	12	1.02	12	6
P0199.120-011-A2	M12x1,75	12	1.12	12	6
P0199.120-012-A2	M12x1,75	12	1.22	12	6
P0199.120-013-A2	M12x1,75	12	1.27	12	6
P0199.120-014-A2	M12x1,75	12	1.40	12	6
P0199.120-015-A2	M12x1,75	12	1.50	12	6
P0199.120-016-A2	M12x1,75	12	1.60	12	6
P0199.120-017-A2	M12x1,75	12	1.70	12	6
P0199.120-018-A2	M12x1,75	12	1.80	12	6
P0199.120-019-A2	M12x1,75	12	1.91	12	6
P0199.120-020-A2	M12x1,75	12	1.98	12	6
P0199.120-021-A2	M12x1,75	12	2.08	12	6
P0199.120-022-A2	M12x1,75	12	2.16	12	6
P0199.120-023-A2	M12x1,75	12	2.29	12	6
P0199.120-024-A2	M12x1,75	12	2.41	12	6
P0199.120-025-A2	M12x1,75	12	2.54	12	6
P0199.120-026-A2	M12x1,75	12	2.59	12	6
P0199.120-027-A2	M12x1,75	12	2.69	12	6
P0199.120-028-A2	M12x1,75	12	2.79	12	6
P0199.120-029-A2	M12x1,75	12	2.92	12	6
P0199.120-030-A2	M12x1,75	12	3.00	12	6
P0199.120-031-A2	M12x1,75	12	3.10	12	6
P0199.120-032-A2	M12x1,75	12	3.18	12	6
P0199.120-033-A2	M12x1,75	12	3.30	12	6
P0199.120-034-A2	M12x1,75	12	3.43	12	6
P0199.120-035-A2	M12x1,75	12	3.51	12	6
P0199.120-036-A2	M12x1,75	12	3.58	12	6
P0199.120-037-A2	M12x1,75	12	3.68	12	6
P0199.120-038-A2	M12x1,75	12	3.81	12	6
P0199.120-039-A2	M12x1,75	12	3.91	12	6
P0199.120-040-A2	M12x1,75	12	4.01	12	6
P0199.120-041-A2	M12x1,75	12	4.11	12	6
P0199.120-042-A2	M12x1,75	12	4.19	12	6
P0199.120-043-A2	M12x1,75	12	4.32	12	6
P0199.120-044-A2	M12x1,75	12	4.42	12	6
P0199.120-045-A2	M12x1,75	12	4.50	12	6
P0199.120-046-A2	M12x1,75	12	4.60	12	6
P0199.120-047-A2	M12x1,75	12	4.70	12	6
P0199.120-048-A2	M12x1,75	12	4.83	12	6
P0199.120-049-A2	M12x1,75	12	4.90	12	6
P0199.120-050-A2	M12x1,75	12	4.95	12	6

BLANKING PLUGS



Hole Preparation

Refer to the data sheet for the correct hole size to drill for the counterbored and drilled hole size and tolerance. Hole concentricity must be held within 0,05mm.

Bore roughness must be between Rz (RMS) 10-30μ (especially for hard materials).

Avoid spiral or longitudinal grooves as these may affect plug performance. Ensure the holes are clean and dirt free.

Installation

Insert the plug into the counterbored hole with the ball facing outwards, seated against the counterbore shoulder.

Press the ball into the sleeve so that the top of the ball is slightly below the top of the sleeve (note approximate values for x and s in table below):

d_1	3	4	5	6	7	8	9	10	12	14	16	18	20	22
Stroke - s	1.2	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.5	6.35	7.0	8.0	9.0	10.0
Top of ball relative to top of sleeve - x ± 0.2	0.4	0.2	0.4	0.4	0.4	0.3	0.4	0.4	0.4	0.4	0.6	0.6	0.8	0.8

Use the correct installation tool for each plug size. The plugs can be installed using a hammer and the installation tool. An air hammer with the correct air hammer installation tool can also be used.

Minimum wall thickness and distance from an edge

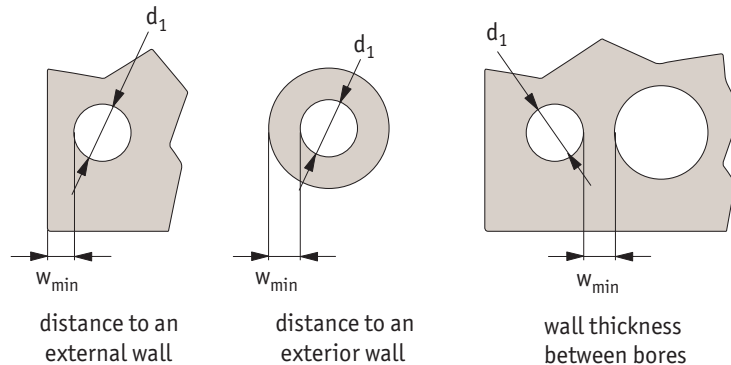
The radial expansion of the plug causes the housing material around the plug to deform plastically. Therefore a proper minimum wall thickness or distance from an edge is necessary to optimise the strength of the mechanical connection. The operating hydraulic pressure, thermal cycling, plug type and characteristics of the base metal also need to be considered – please consult our technical department.

$$d_1 \geq 4\text{mm}$$

$$w_{\min} = f_{\min} \times d_1$$

$$d_1 < 4\text{mm}$$

$$w_{\min} = (f_{\min} \times d_1) + 0.5\text{mm}$$

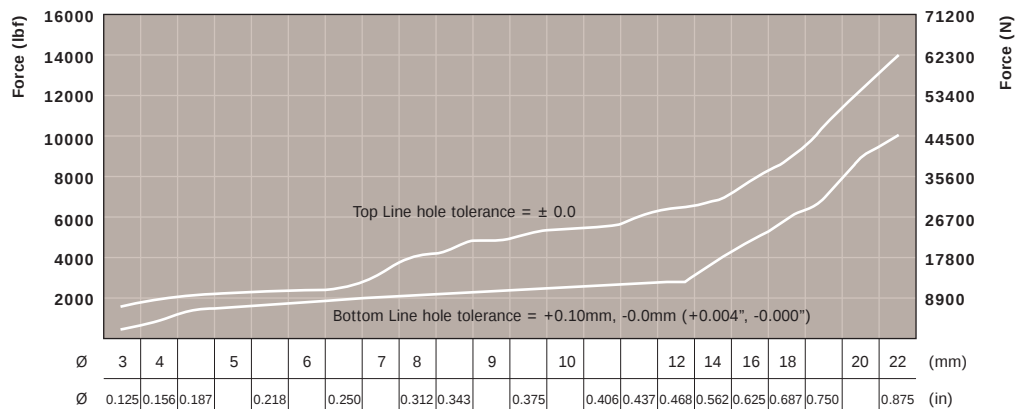


The guidelines for minimum wall thickness or distance from and edge ($W_{\min}$) are shown below – these minimum values produce only a very slight deformation on the exterior profile (less than 20 microns).

Sealing Plug type	Base Metal						
	Steel (SAE 1144)	Steel (SAE 10L15)	Cast Iron (ASTM A48)	Ductile Iron (ASTM A356)	Aluminium (2024- T4)	Aluminium (6061- T6)	Cast Aluminium (356-T6)
	Factor $f_{\min}$						
Steel body	0.5	0.6	1.0	0.6	0.6	1.0	1.0
Stainless Body	0.6	0.8	1.0	0.8	0.8	1.0	1.0
Pull PLUGs	0.5	0.6	1.0	0.6	0.6	1.0	1.0

Installation Forces Guidelines

The values offered are to be used as a guideline. The base metal chosen for your specific application, the surface treatment, hole size and surface finish all affect the seal performance. Please contact our Technical Department for more information.



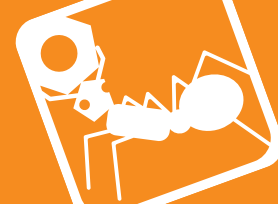
Installation Forces:

Pressure Performance Guidelines

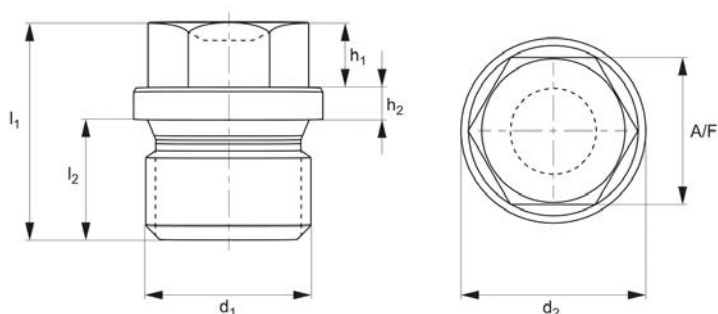
	Steel (Case-hardened) Plug Body	
	Ø 3-10	Ø 12-32
Steel (SAE 1144)	350 bar working pressure 1,100 bar proof pressure	380 bar working pressure 900 bar proof pressure
Steel (SAE 10L15)		
Cast Iron (ASTM A48)		
Ductile Iron (ASTM A356)		
Aluminium (2024-T4)		
Aluminium (6061-T6)	310 bar working pressure	240 bar working pressure
Cast Aluminium (356-T6)	1,000 bar proof pressure	800 bar proof pressure

	Stainless Steel (300 Series) Plug Body	
	Ø 3-10	Ø 12-32
Steel (SAE 1144)	450 bar working pressure 1,300 bar proof pressure	450 bar working pressure 1,100 bar proof pressure
Steel (SAE 10L15)		
Cast Iron (ASTM A48)		
Ductile Iron (ASTM A356)		
Aluminium (2024-T4)		
Aluminium (6061-T6)	380 bar working pressure	280 bar working pressure
Cast Aluminium (356-T6)	1,200 bar proof pressure	900 bar proof pressure

	Aluminium (2024-T4) Plug Body	
	Ø 3-10	Ø 12-32
Steel (SAE 1144)	450 bar working pressure 1,300 bar proof pressure	350 bar working pressure 1,100 bar proof pressure
Steel (SAE 10L15)		
Cast Iron (ASTM A48)		
Ductile Iron (ASTM A356)		
Aluminium (2024-T4)		
Aluminium (6061-T6)	380 bar working pressure	280 bar working pressure
Cast Aluminium (356-T6)	1,200 bar proof pressure	900 bar proof pressure



P0182



Material

Steel (self-colour & zinc-plated), stainless steel (A2 & A4), and brass.

Technical Notes

To DIN 910. Most metric screw plug threads

are fine threads.

Inch threads beginning with „G“ indicate BSPP (British Standard Pipe Parallel threads ISO 228).

Tips

Tightening torque is dependent on fluid,

pressure, temperature, and material pairing

Also available on request with O rings (NBR, Viton, EPDM, Silicone etc), permanent magnet, and polyamide melt seal under head.

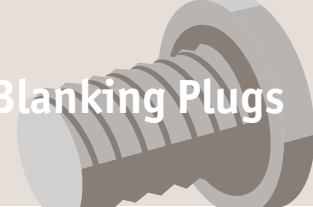
Order No.	d ₁ x p	d ₂ tol. h14	h ₁	h ₂	l ₁	l ₂ ±0.2	A/F	Material
P0182.100-100-SC	M10 x1,0	14	6	3	17	8	10	Steel SC
P0182.080-100-SC	M 8 x1,0	14	6	3	17	8	10	Steel SC
P0182.120-150-SC	M12 x1,5	17	6	3	21	12	13	Steel SC
P0182.140-150-SC	M14 x1,5	19	6	3	21	12	13	Steel SC
P0182.160-150-SC	M16 x1,5	21	6	3	21	12	17	Steel SC
P0182.180-150-SC	M18 x1,5	23	8	4	24	12	17	Steel SC
P0182.200-150-SC	M20 x1,5	25	8	4	26	14	19	Steel SC
P0182.220-150-SC	M22 x1,5	27	8	4	26	14	19	Steel SC
P0182.240-150-SC	M24 x1,5	29	9	4	27	14	22	Steel SC
P0182.260-150-SC	M26 x1,5	31	10	4	30	16	24	Steel SC
P0182.270-200-SC	M27 x2,0	32	10	4	30	16	24	Steel SC
P0182.300-150-SC	M30 x1,5	36	11	5	30	16	24	Steel SC
P0182.300-200-SC	M30 x2,0	36	11	5	32	16	24	Steel SC
P0182.330-200-SC	M33 x2,0	39	11	5	32	16	27	Steel SC
P0182.360-150-SC	M36 x1,5	42	11	5	32	16	27	Steel SC
P0182.360-200-SC	M36 x2,0	42	11	5	32	16	27	Steel SC
P0182.380-150-SC	M38 x1,5	44	11	5	32	16	27	Steel SC
P0182.390-200-SC	M39 x2	44	11	5	32	16	27	Steel SC
P0182.420-150-SC	M42 x1,5	49	12	5	33	16	30	Steel SC
P0182.420-200-SC	M42 x2,0	49	12	5	33	16	30	Steel SC
P0182.450-150-SC	M45 x1,5	52	12	5	33	16	30	Steel SC
P0182.450-200-SC	M45 x2	52	12	5	33	16	30	Steel SC
P0182.480-150-SC	M48 x1,5	52	12	5	33	16	30	Steel SC
P0182.480-200-SC	M48 x2,0	55	12	5	33	16	30	Steel SC
P0182.520-200-SC	M52 x2,0	60	12	5	33	16	30	Steel SC
P0182.520-150-SC	M52 x1,5	60	12	5	33	16	30	Steel SC
P0182.560-200-SC	M56 x2,0	64	12	5	40	20	36	Steel SC
P0182.600-200-SC	M60 x2,0	72	15	5	40	20	36	Steel SC
P0182.640-200-SC	M64 x2,0	72	15	5	40	20	36	Steel SC
P0182.G1/8-SC	G1/8"	14	6	3	17	8	10	Steel SC
P0182.G1/4-SC	G1/4"	18	6	3	21	12	13	Steel SC



Blanking Plugs Heavy Duty

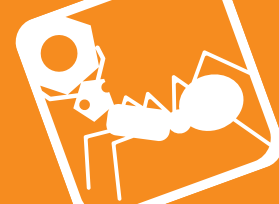
metric & BSPP

Blanking Plugs



BLANKING PLUGS

Order No.	d ₁ x p	d ₂ tol. h14	h ₁	h ₂	l ₁	l ₂ ±0.2	A/F	Material
P0182.G1/4x8-SC	G1/4"x8	18	6	3	21	12	13	Steel SC
P0182.G3/8-SC	G3/8"	22	6	3	21	12	17	Steel SC
P0182.G3/8x8-SC	G3/8"x8	22	6	3	17	8	17	Steel SC
P0182.G1/2-SC	G1/2"	26	8	4	26	14	19	Steel SC
P0182.G1/1x10-SC	G1/1"x10	26	8	4	22	10	19	Steel SC
P0182.G1/2x10-SC	G1/2"x10	26	8	4	22	10	19	Steel SC
P0182.G3/4-SC	G3/4"	32	10	4	30	16	24	Steel SC
P0182.G3/4x12-SC	G3/4"x12	32	10	4	26	12	24	Steel SC
P0182.G5/8-SC	G5/8"	28	10	4	30	16	24	Steel SC
P0182.G1-SC	G1"	39	11	5	32	16	27	Steel SC
P0182.G1-1/8-SC	G1-1/8"	44	11	5	32	16	27	Steel SC
P0182.G1-1/4-SC	G1-1/4"	49	12	5	33	16	30	Steel SC
P0182.G1-1/2-SC	G1-1/2"	55	12	5	33	16	30	Steel SC
P0182.G1-3/4-SC	G1-3/4"	62	10	4	40	20	24	Steel SC
P0182.G2-SC	G2"	68	15	5	40	20	36	Steel SC
P0182.G2-1/2-SC	G2-1/2"	85	15	5	40	20	36	Steel SC
P0182.G3-SC	G3	85	15	5	40	20	36	Steel SC
P0182.080-100-ZP	M 8 x1,0	14	6	3	17	8	10	Steel ZP
P0182.100-100-ZP	M10 x1,0	14	6	3	17	8	10	Steel ZP
P0182.120-100-ZP	M12 x1	17	6	3	21	12	13	Steel ZP
P0182.120-150-ZP	M12 x1,5	17	6	3	21	12	13	Steel ZP
P0182.140-150-ZP	M14 x1,5	19	6	3	21	12	13	Steel ZP
P0182.160-150-ZP	M16 x1,5	21	6	3	21	12	17	Steel ZP
P0182.180-150-ZP	M18 x1,5	23	8	4	24	12	17	Steel ZP
P0182.200-150-ZP	M20 x1,5	25	8	4	26	14	19	Steel ZP
P0182.220-150-ZP	M22 x1,5	27	8	4	26	14	19	Steel ZP
P0182.240-150-ZP	M24 x1,5	29	9	4	27	14	22	Steel ZP
P0182.260-150-ZP	M26 x1,5	31	10	4	30	16	24	Steel ZP
P0182.270-200-ZP	M27 x2,0	32	10	4	30	16	24	Steel ZP
P0182.300-150-ZP	M30 x1,5	36	11	5	30	16	24	Steel ZP
P0182.300-200-ZP	M30 x2,0	36	11	5	32	16	24	Steel ZP
P0182.330-200-ZP	M33 x2,0	39	11	5	32	16	27	Steel ZP
P0182.360-150-ZP	M36 x1,5	42	11	5	32	16	27	Steel ZP
P0182.360-200-ZP	M36 x2,0	42	11	5	32	16	27	Steel ZP
P0182.380-150-ZP	M38 x1,5	42	11	5	32	16	27	Steel ZP
P0182.390-200-ZP	M39 x2,0	42	11	5	32	16	27	Steel ZP
P0182.450-200-ZP	M45 x2,0	42	11	5	32	16	27	Steel ZP
P0182.480-150-ZP	M48 x1,5	42	11	5	32	16	27	Steel ZP
P0182.520-200-ZP	M52 x2,0	42	11	5	32	16	27	Steel ZP
P0182.G1/8-ZP	G1/8"	14	6	3	17	8	10	Steel ZP
P0182.G1/4-ZP	G1/4"	18	6	3	21	12	13	Steel ZP
P0182.G1/4x8-ZP	G1/4"x8	18	6	3	21	12	13	Steel ZP
P0182.G3/8-ZP	G3/8"	22	6	3	21	12	17	Steel ZP
P0182.G3/8x8-ZP	G3/8"x8	22	6	3	17	8	17	Steel ZP
P0182.G1/2-ZP	G1/2"	26	8	4	26	14	19	Steel ZP
P0182.G1/1x10-ZP	G1/1"x10	26	8	4	22	10	19	Steel ZP
P0182.G1/2x10-ZP	G1/2"x10	26	8	4	22	10	19	Steel ZP
P0182.G5/8-ZP	G5/8"	28	10	4	30	16	24	Steel ZP
P0182.G3/4-ZP	G3/4"	32	10	4	30	16	24	Steel ZP
P0182.G3/4x12-ZP	G3/4"x12	32	10	4	26	12	24	Steel ZP
P0182.G7/8-ZP	G7/8	32	10	4	26	12	24	Steel ZP
P0182.G1-ZP	G1"	39	11	5	32	16	27	Steel ZP
P0182.G1-1/8-ZP	G1-1/8"	44	11	5	32	16	27	Steel ZP
P0182.G1-1/4-ZP	G1-1/4"	49	12	5	33	16	30	Steel ZP
P0182.G1-1/2-ZP	G1-1/2"	55	12	5	33	16	30	Steel ZP
P0182.G1-3/4-ZP	G1-3/4"	55	12	5	33	16	30	Steel ZP
P0182.G2-ZP	G2	55	12	5	33	16	30	Steel ZP
P0182.G2-1/2-ZP	G2-1/2	55	12	5	33	16	30	Steel ZP
P0182.G3-ZP	G3	55	12	5	33	16	30	Steel ZP
P0182.G1/8-A4	G1/8"	14	6	3	17	8	10	A4 s/s
P0182.G1/4-A4	G1/4"	18	6	3	21	12	13	A4 s/s
P0182.G1/4x8-A4	G1/4"x8	18	6	3	21	12	13	A4 s/s
P0182.G3/8-A4	G3/8"	22	6	3	21	12	17	A4 s/s
P0182.G3/8x8-A4	G3/8"x8	22	6	3	17	8	17	A4 s/s
P0182.G1/2-A4	G1/2"	26	8	4	26	14	19	A4 s/s
P0182.G1/2x10-A4	G1/2"x10	26	8	4	22	10	19	A4 s/s
P0182.G5/8-A4	G5/8"	28	10	4	30	16	24	A4 s/s
P0182.G3/4-A4	G3/4"	32	10	4	30	16	24	A4 s/s



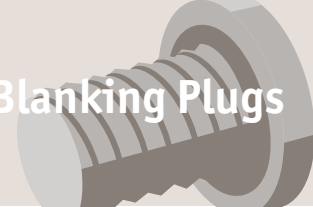
Order No.	d ₁ x p	d ₂ tol. h14	h ₁	h ₂	l ₁	l ₂ ±0.2	A/F	Material
P0182.G3/4x12-A4	G3/4"x12	32	10	4	26	12	24	A4 s/s
P0182.G7/8-A4	G7/8	32	10	4	26	12	24	A4 s/s
P0182.G1-A4	G1"	39	11	5	32	16	27	A4 s/s
P0182.G1-1/8-A4	G1-1/8"	44	11	5	32	16	27	A4 s/s
P0182.G1-1/4-A4	G1-1/4"	49	12	5	33	16	30	A4 s/s
P0182.G1-1/2-A4	G1-1/2"	55	12	5	33	16	30	A4 s/s
P0182.G1-3/4-A4	G1-3/4	62	15	5	40	20	36	A4 s/s
P0182.G2-A4	G2"	68	15	5	40	20	36	A4 s/s
P0182.100-100-A4	M10 x1,0	14	6	3	17	8	10	A4 s/s
P0182.120-150-A4	M12 x1,5	17	6	3	21	12	13	A4 s/s
P0182.140-150-A4	M14 x1,5	19	6	3	21	12	13	A4 s/s
P0182.160-150-A4	M16 x1,5	21	6	3	21	12	17	A4 s/s
P0182.180-150-A4	M18 x1,5	23	8	4	24	12	17	A4 s/s
P0182.200-150-A4	M20 x1,5	25	8	4	26	14	19	A4 s/s
P0182.220-150-A4	M22 x1,5	27	8	4	26	14	19	A4 s/s
P0182.240-150-A4	M24 x1,5	29	9	4	27	14	22	A4 s/s
P0182.260-150-A4	M26 x1,5	31	10	4	30	16	24	A4 s/s
P0182.270-200-A4	M27 x2,0	32	10	4	30	16	24	A4 s/s
P0182.300-150-A4	M30 x1,5	36	11	5	30	16	24	A4 s/s
P0182.300-200-A4	M30 x2,0	36	11	5	32	16	24	A4 s/s
P0182.420-150-A4	M42 x1,5	36	11	5	32	16	24	A4 s/s
P0182.100-100-A2	M10 x1,0	14	6	3	17	8	10	A2 s/s
P0182.120-150-A2	M12 x1,5	17	6	3	21	12	13	A2 s/s
P0182.140-150-A2	M14 x1,5	19	6	3	21	12	13	A2 s/s
P0182.160-150-A2	M16 x1,5	21	6	3	21	12	17	A2 s/s
P0182.180-150-A2	M18 x1,5	23	8	4	24	12	17	A2 s/s
P0182.200-150-A2	M20 x1,5	25	8	4	26	14	19	A2 s/s
P0182.220-150-A2	M22 x1,5	27	8	4	26	14	19	A2 s/s
P0182.240-150-A2	M24 x1,5	29	9	4	27	14	22	A2 s/s
P0182.260-150-A2	M26 x1,5	31	10	4	30	16	24	A2 s/s
P0182.270-200-A2	M27 x2,0	32	10	4	30	16	24	A2 s/s
P0182.300-150-A2	M30 x1,5	36	11	5	30	16	24	A2 s/s
P0182.300-200-A2	M30 x2,0	36	11	5	32	16	24	A2 s/s
P0182.G1/8-A2	G1/8"	14	6	3	17	8	10	A2 s/s
P0182.G1/4-A2	G1/4"	18	6	3	21	12	13	A2 s/s
P0182.G3/8-A2	G3/8"	22	6	3	21	12	17	A2 s/s
P0182.G1/2-A2	G1/2"	26	8	4	26	14	19	A2 s/s
P0182.G5/8-A2	G5/8"	28	10	4	30	16	24	A2 s/s
P0182.G3/4-A2	G3/4"	32	10	4	30	16	24	A2 s/s
P0182.G1-A2	G1"	39	11	5	32	16	27	A2 s/s
P0182.G1-1/8-A2	G1-1/8"	44	11	5	32	16	27	A2 s/s
P0182.G1-1/4-A2	G1-1/4"	49	12	5	33	16	30	A2 s/s
P0182.G1-1/2-A2	G1-1/2"	55	12	5	33	16	30	A2 s/s
P0182.G1-3/4-A2	G1-3/4	62	15	5	40	20	36	A2 s/s
P0182.G2-A2	G2"	68	15	5	40	20	36	A2 s/s
P0182.080-100-BR	M 8 x1,0	14	6	3	17	8	10	Brass
P0182.100-100-BR	M10 x1,0	14	6	3	17	8	10	Brass
P0182.120-150-BR	M12 x1,5	17	6	3	21	12	13	Brass
P0182.140-150-BR	M14 x1,5	19	6	3	21	12	13	Brass
P0182.160-150-BR	M16 x1,5	21	6	3	21	12	17	Brass
P0182.180-150-BR	M18 x1,5	23	8	4	24	12	17	Brass
P0182.200-150-BR	M20 x1,5	25	8	4	26	14	19	Brass
P0182.220-150-BR	M22 x1,5	27	8	4	26	14	19	Brass
P0182.240-150-BR	M24 x1,5	29	9	4	27	14	22	Brass
P0182.260-150-BR	M26 x1,5	31	10	4	30	16	24	Brass
P0182.270-200-BR	M27 x2,0	32	10	4	30	16	24	Brass
P0182.300-150-BR	M30 x1,5	36	11	5	30	16	24	Brass
P0182.300-200-BR	M30 x2,0	36	11	5	32	16	24	Brass
P0182.330-200-BR	M33 x2,0	39	11	5	32	16	27	Brass
P0182.360-150-BR	M36 x1,5	42	11	5	32	16	27	Brass
P0182.360-200-BR	M36 x2	42	11	5	32	16	27	Brass
P0182.420-150-BR	M42 x1,5	49	12	5	33	16	30	Brass
P0182.G1/8-BR	G1/8"	14	6	3	17	8	10	Brass
P0182.G1/4-BR	G1/4"	18	6	3	21	12	13	Brass
P0182.G1/4x8-BR	G1/4"x8	18	6	3	21	12	13	Brass
P0182.G3/8-BR	G3/8"	22	6	3	21	12	17	Brass
P0182.G3/8x8-BR	G3/8"x8	22	6	3	17	8	17	Brass
P0182.G1/2-BR	G1/2"	26	8	4	26	14	19	Brass



Blanking Plugs Heavy Duty

metric & BSPP

Blanking Plugs

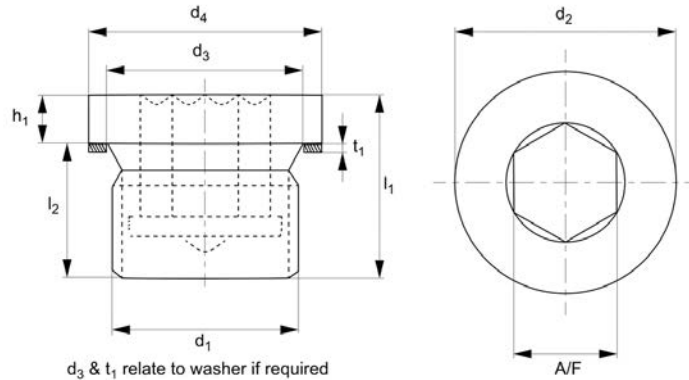


Order No.	d ₁ x p	d ₂ tol. h14	h ₁	h ₂	l ₁	l ₂ ±0.2	A/F	Material
P0182.G1/2x10-BR	G1/2"x10	26	8	4	22	10	19	Brass
P0182.G5/8-BR	G5/8"	28	10	4	30	16	24	Brass
P0182.G3/4-BR	G3/4"	32	10	4	30	16	24	Brass
P0182.G3/4X12-BR	G3/4"x12	32	10	4	26	12	24	Brass
P0182.G7/8-BR	G7/8	32	10	4	26	12	24	Brass
P0182.G1-BR	G1"	39	11	5	32	16	27	Brass
P0182.G1-1/8-BR	G1-1/8"	44	11	5	32	16	27	Brass
P0182.G1-1/4-BR	G1-1/4"	49	12	5	33	16	30	Brass
P0182.G1-1/2-BR	G1-1/2"	55	12	5	33	16	30	Brass
P0182.G1-3/4-BR	G1-3/4"	62	15	5	40	20	36	Brass
P0182.G2-BR	G2"	68	15	5	40	20	36	Brass

BLANKING PLUGS



P0183



Material

Steel (self-colour & zinc-plated, class 5.8), stainless steel (A2 & A4), and brass.

Technical Notes

To DIN 908. Most metric screw plug threads are fine threads.

Inch threads beginning with „G“ indicate BSPP (British Standard Pipe Parallel

threads ISO 228).

For sealing washers (copper to DIN 7603A see part no. P0334).

Tightening torque is dependent on fluid, pressure, temperature, and material pairing.

Tips

Also available on request with 0 rings

(NBR, Viton, EPDM, Silicone etc),

permanent magnet, and polyamide melt seal under head (PS).

ZP - Zinc Plated

A2 - A2 Stainless Steel

A4 - A4 Stainless Steel

BR - Brass

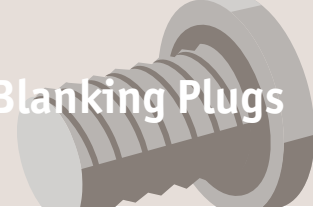
Order No.	d ₁ x p	d ₂ tol. h14	h ₁ ±0.5	d ₃	d ₄	l ₁	l ₂ ±0.2	t ₁	A/F	Material
P0183.080-100-ZP	M 8 x1,0	12	3	8.3	11.5	11	8	1.0	4	Zinc Plated
P0183.100-075-ZP	M10 x0,75	14	3	10.3	13.5	11	8	1.0	5	Zinc Plated
P0183.100-100-ZP	M10 x1,0	14	3	10.3	13.5	11	8	1.0	5	Zinc Plated
P0183.100-125-ZP	M10 x1,25	17	3	12.3	16.0	15	12	1.5	6	Zinc Plated
P0183.100-150-ZP	M10 x1,5	14	3	10.3	13.5	11	8	1.0	5	Zinc Plated
P0183.120-100-ZP	M12 x1	17	3	12.3	16.0	15	12	1.5	6	Zinc Plated
P0183.120-125-ZP	M12 x1,25	17	3	12.3	16.0	15	12	1.5	6	Zinc Plated
P0183.120-150-ZP	M12 x1,5	17	3	12.3	16.0	15	12	1.5	6	Zinc Plated
P0183.140-125-ZP	M14 x1,25	19	3	14.3	18.0	15	12	1.5	6	Zinc Plated
P0183.140-150-ZP	M14 x1,5	19	3	14.3	18.0	15	12	1.5	6	Zinc Plated
P0183.160-100-ZP	M16 x1	21	3	16.3	20.0	15	12	1.5	8	Zinc Plated
P0183.160-150-ZP	M16 x1,5	21	3	16.3	20.0	15	12	1.5	8	Zinc Plated
P0183.160-200-ZP	M16 x2	21	3	16.3	20.0	15	12	1.5	8	Zinc Plated
P0183.180-100-ZP	M18 x1	23	4	18.3	22.0	16	12	1.5	8	Zinc Plated
P0183.180-150-ZP	M18 x1,5	23	4	18.3	22.0	16	12	1.5	8	Zinc Plated
P0183.200-150-ZP	M20 x1,5	25	4	20.3	24.0	18	14	1.5	10	Zinc Plated
P0183.220-150-ZP	M22 x1,5	27	4	22.3	27.0	18	14	1.5	10	Zinc Plated
P0183.240-150-ZP	M24 x1,5	29	4	24.3	29.0	18	14	2.0	12	Zinc Plated
P0183.260-150-ZP	M26 x1,5	31	4	26.3	31.0	20	16	2.0	12	Zinc Plated
P0183.270-200-ZP	M27 x2,0	32	4	27.3	32.0	20	16	2.0	12	Zinc Plated
P0183.300-150-ZP	M30 x1,5	36	4	30.3	36.0	20	16	2.0	17	Zinc Plated
P0183.300-200-ZP	M30 x2,0	36	4	30.3	36.0	20	16	2.0	17	Zinc Plated
P0183.330-200-ZP	M33 x2,0	39	5	33.3	39.0	21	16	2.0	17	Zinc Plated
P0183.360-150-ZP	M36 x1,5	42	5	36.3	42.0	21	16	2.0	19	Zinc Plated
P0183.360-200-ZP	M36 x2	42	5	36.3	42.0	21	16	2.0	19	Zinc Plated
P0183.380-150-ZP	M38 x1,5	44	5	38.3	44.0	21	16	2.0	19	Zinc Plated
P0183.380-200-ZP	M38 x2	44	5	38.3	44.0	21	16	2.0	19	Zinc Plated
P0183.390-200-ZP	M32 x2	44	5	38.3	44.0	21	16	2.0	19	Zinc Plated
P0183.420-150-ZP	M42 x1,5	49	5	42.3	49.0	21	16	2.0	22	Zinc Plated



Blanking Plugs with Collar

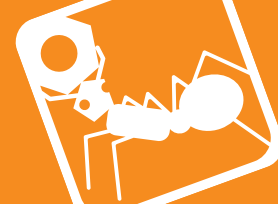
metric & BSPP

Blanking Plugs



BLANKING PLUGS

Order No.	d ₁ x p	d ₂ tol. h14	h ₁ ±0.5	d ₃	d ₄	l ₁	l ₂ ±0.2	t ₁	A/F	Material
P0183.420-200-ZP	M42 x2,0	49	5	42.3	49.0	21	16	2.0	22	Zinc Plated
P0183.450-150-ZP	M45 x1,5	55	5	48.3	55.0	21	16	2.0	24	Zinc Plated
P0183.450-200-ZP	M45 x2	55	5	48.3	55.0	21	16	2.0	24	Zinc Plated
P0183.480-150-ZP	M48 x1,5	55	5	48.3	55.0	21	16	2.0	24	Zinc Plated
P0183.480-200-ZP	M48 x2,0	55	5	48.3	55.0	21	16	2.0	24	Zinc Plated
P0183.520-150-ZP	M52 x1,5	60	5	52.3	60.0	21	16	2.0	24	Zinc Plated
P0183.520-200-ZP	M52 x2	60	5	52.3	60.0	21	16	2.0	24	Zinc Plated
P0183.560-200-ZP	M56 x2,0	64	5	56.3	64.0	25	20	2.0	32	Zinc Plated
P0183.600-200-ZP	M60 x2,0	68	5	60.3	68.0	25	20	2.0	32	Zinc Plated
P0183.640-200-ZP	M64 x2,0	72	5	64.3	72.0	25	20	2.0	32	Zinc Plated
P0183.G1/8-ZP	G1/8"	14	3	10.0	13.5	11	8	1	5	Zinc Plated
P0183.G1/4-ZP	G1/4"	18	3	13.4	18.0	15	12	1.5	6	Zinc Plated
P0183.G3/8-ZP	G3/8"	22	3	17.0	21.0	15	12	1.5	8	Zinc Plated
P0183.G1/2-ZP	G1/2"	26	4	21.3	26.0	18	14	1.5	10	Zinc Plated
P0183.G5/8-ZP	G5/8"	28	4	24.0	28.0	18	14	1.5	12	Zinc Plated
P0183.G3/4-ZP	G3/4"	32	4	26.7	32.0	20	16	2	12	Zinc Plated
P0183.G7/8-ZP	G7/8"	36	4	29.4	36.0	20	16	2	12	Zinc Plated
P0183.G1-ZP	G1"	39	5	33.5	39.0	21	16	2	17	Zinc Plated
P0183.G1-1/8-ZP	G1-1/8"	44	5	36.2	44.0	21	16	2	19	Zinc Plated
P0183.G1-1/4-ZP	G1 1/4"	49	5	42.2	49.0	21	16	2	22	Zinc Plated
P0183.G1-1/2-ZP	G1-1/2"	55	5	48.1	55.0	21	16	2	24	Zinc Plated
P0183.G1-3/4-ZP	G1-3/4"	62	5	51.8	62.0	25	20	2	32	Zinc Plated
P0183.G2-ZP	G2"	68	5	54.5	68.0	25	20	2	32	Zinc Plated
P0183.G2-1/2-ZP	G2-1/2"	68	5	54.5	68.0	25	20	2	32	Zinc Plated
P0183.G3-ZP	G3"	68	5	54.5	68.0	25	20	2	32	Zinc Plated
P0183.080-100-SC	M 8 x1,0	12	3	8.3	11.5	11	8	1.0	4	Self Colour
P0183.100-075-SC	M10 x0,75	14	3	10.3	13.5	11	8	1.0	5	Self Colour
P0183.100-100-SC	M10 x1,0	14	3	10.3	13.5	11	8	1.0	5	Self Colour
P0183.100-125-SC	M10 x1,25	14	3	10.3	13.5	11	8	1.0	5	Self Colour
P0183.100-150-SC	M10 x1,5	14	3	10.3	13.5	11	8	1.0	5	Self Colour
P0183.120-100-SC	M12 x1	17	3	12.3	16.0	15	12	1.5	6	Self Colour
P0183.120-125-SC	M12 x1,25	17	3	12.3	16.0	15	12	1.5	6	Self Colour
P0183.120-150-SC	M12 x1,5	17	3	12.3	16.0	15	12	1.5	6	Self Colour
P0183.140-125-SC	M14 x1,25	19	3	14.3	18.0	15	12	1.5	6	Self Colour
P0183.140-150-SC	M14 x1,5	19	3	14.3	18.0	15	12	1.5	6	Self Colour
P0183.160-100-SC	M16 x1	21	3	16.3	20.0	15	12	1.5	8	Self Colour
P0183.160-150-SC	M16 x1,5	21	3	16.3	20.0	15	12	1.5	8	Self Colour
P0183.160-200-SC	M16 x2	21	3	16.3	20.0	15	12	1.5	8	Self Colour
P0183.180-150-SC	M18 x1,5	23	4	18.3	22.0	16	12	1.5	8	Self Colour
P0183.200-150-SC	M20 x1,5	25	4	20.3	24.0	18	14	1.5	10	Self Colour
P0183.220-150-SC	M22 x1,5	27	4	22.3	27.0	18	14	1.5	10	Self Colour
P0183.240-150-SC	M24 x1,5	29	4	24.3	29.0	18	14	2.0	12	Self Colour
P0183.260-150-SC	M26 x1,5	31	4	26.3	31.0	20	16	2.0	12	Self Colour
P0183.270-200-SC	M27 x2,0	32	4	27.3	32.0	20	16	2.0	12	Self Colour
P0183.300-150-SC	M30 x1,5	36	4	30.3	36.0	20	16	2.0	17	Self Colour
P0183.300-200-SC	M30 x2,0	36	4	30.3	36.0	20	16	2.0	17	Self Colour
P0183.330-150-SC	M33 x1,5	39	5	33.3	39.0	21	16	2.0	17	Self Colour
P0183.330-200-SC	M33 x2,0	39	5	33.3	39.0	21	16	2.0	17	Self Colour
P0183.360-150-SC	M36 x1,5	42	5	36.3	42.0	21	16	2.0	19	Self Colour
P0183.360-200-SC	M36 x2	42	5	36.3	42.0	21	16	2.0	19	Self Colour
P0183.380-150-SC	M38 x1,5	44	5	38.3	44.0	21	16	2.0	19	Self Colour
P0183.380-200-SC	M38 x2	44	5	38.3	44.0	21	16	2.0	19	Self Colour
P0183.390-200-SC	M39 x2	44	5	38.3	44.0	21	16	2.0	19	Self Colour
P0183.420-150-SC	M42 x1,5	49	5	42.3	49.0	21	16	2.0	22	Self Colour
P0183.420-200-SC	M42 x2,0	49	5	42.3	49.0	21	16	2.0	22	Self Colour
P0183.450-150-SC	M45 x1,5	49	5	42.3	49.0	21	16	2.0	22	Self Colour
P0183.450-200-SC	M45 x2	49	5	42.3	49.0	21	16	2.0	22	Self Colour
P0183.480-150-SC	M48 x1,5	55	5	48.3	55.0	21	16	2.0	24	Self Colour
P0183.480-200-SC	M48 x2,0	55	5	48.3	55.0	21	16	2.0	24	Self Colour
P0183.520-150-SC	M52 x1,5	60	5	52.3	60.0	21	16	2.0	24	Self Colour
P0183.520-200-SC	M52 x2	60	5	52.3	60.0	21	16	2.0	24	Self Colour
P0183.560-200-SC	M56 x2,0	64	5	56.3	64.0	25	20	2.0	32	Self Colour
P0183.600-200-SC	M60 x2,0	68	5	60.3	68.0	25	20	2.0	32	Self Colour
P0183.640-200-SC	M64 x2,0	72	5	64.3	72.0	25	20	2.0	32	Self Colour
P0183.G1/8-SC	G1/8"	14	3	10.0	13.5	11	8	1.0	5	Self Colour
P0183.G1/4-SC	G1/4"	18	3	13.4	18.0	15	12	1.5	6	Self Colour
P0183.G3/8-SC	G3/8"	22	3	17.0	21.0	15	12	1.5	8	Self Colour
P0183.G1/2-SC	G1/2"	26	4	21.3	26.0	18	14	1.5	10	Self Colour



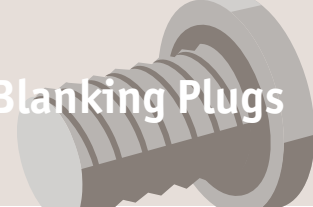
Order No.	d ₁ x p	d ₂ tol. h14	h ₁ ±0.5	d ₃	d ₄	l ₁	l ₂ ±0.2	t ₁	A/F	Material
P0183.G5/8-SC	G5/8"	28	4	24.0	28.0	18	14	1.5	12	Self Colour
P0183.G3/4-SC	G3/4"	32	4	26.7	32.0	20	16	2.0	12	Self Colour
P0183.G7/8-SC	G7/8"	36	4	29.4	36.0	20	16	2.0	12	Self Colour
P0183.G1-SC	G1"	39	5	33.5	39.0	21	16	2.0	17	Self Colour
P0183.G1-1/8-SC	G1-1/8"	44	5	36.2	44.0	21	16	2.0	19	Self Colour
P0183.G1-1/4-SC	G1 1/4"	49	5	42.2	49.0	21	16	2.0	22	Self Colour
P0183.G1-1/2-SC	G1-1/2"	55	5	48.1	55.0	21	16	2.0	24	Self Colour
P0183.G1-3/4-SC	G1-3/4"	62	5	51.8	62.0	25	20	2.0	32	Self Colour
P0183.G2-SC	G2"	68	5	54.5	68.0	25	20	2.0	32	Self Colour
P0183.080-100-A4	M 8 x1,0	12	3	8.3	11.5	11	8	1.0	4	A4 s/s
P0183.100-100-A4	M10 x1,0	14	3	10.3	13.5	11	8	1.0	5	A4 s/s
P0183.120-100-A4	M12 x1	17	3	12.3	16.0	15	12	1.5	6	A4 s/s
P0183.120-150-A4	M12 x1,5	17	3	12.3	16.0	15	12	1.5	6	A4 s/s
P0183.140-150-A4	M14 x1,5	19	3	14.3	18.0	15	12	1.5	6	A4 s/s
P0183.160-150-A4	M16 x1,5	21	3	16.3	20.0	15	12	1.5	8	A4 s/s
P0183.180-150-A4	M18 x1,5	23	4	18.3	22.0	16	12	1.5	8	A4 s/s
P0183.200-150-A4	M20 x1,5	25	4	20.3	24.0	18	14	1.5	10	A4 s/s
P0183.220-150-A4	M22 x1,5	27	4	22.3	27.0	18	14	1.5	10	A4 s/s
P0183.240-150-A4	M24 x1,5	29	4	24.3	29.0	18	14	2.0	12	A4 s/s
P0183.260-150-A4	M26 x1,5	31	4	26.3	31.0	20	16	2.0	12	A4 s/s
P0183.270-200-A4	M27 x2,0	32	4	27.3	32.0	20	16	2.0	12	A4 s/s
P0183.300-150-A4	M30 x1,5	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.300-200-A4	M30 x2,0	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.360-150-A4	M36 x1,5	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.380-150-A4	M38 x1,5	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.420-150-A4	M42 x1,5	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.420-200-A4	M42 x2	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.450-150-A4	M45 x1,5	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.480-200-A4	M48 x2	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.520-200-A4	M52 x2	36	4	30.3	36.0	20	16	2.0	17	A4 s/s
P0183.G1/8-A4	G1/8"	14	3	10.0	13.5	11	8	1.0	5	A4 s/s
P0183.G1/4-A4	G1/4"	18	3	13.4	18.0	15	12	1.5	6	A4 s/s
P0183.G3/8-A4	G3/8"	22	3	17.0	21.0	15	12	1.5	8	A4 s/s
P0183.G1/2-A4	G1/2"	26	4	21.3	26.0	18	14	1.5	10	A4 s/s
P0183.G5/8-A4	G5/8"	28	4	24.0	28.0	18	14	1.5	12	A4 s/s
P0183.G3/4-A4	G3/4"	32	4	26.7	32.0	20	16	2.0	12	A4 s/s
P0183.G7/8-A4	G7/8"	36	4	29.4	36.0	20	16	2.0	12	A4 s/s
P0183.G1-A4	G1"	39	5	33.5	39.0	21	16	2.0	17	A4 s/s
P0183.G1-1/8-A4	G1-1/8"	44	5	36.2	44.0	21	16	2.0	19	A4 s/s
P0183.G1-1/4-A4	G1 1/4"	49	5	42.2	49.0	21	16	2.0	22	A4 s/s
P0183.G1-1/2-A4	G1-1/2"	55	5	48.1	55.0	21	16	2.0	24	A4 s/s
P0183.G1-3/4-A4	G1-3/4"	62	5	51.8	62.0	25	20	2.0	32	A4 s/s
P0183.G2-A4	G2"	68	5	54.5	68.0	25	20	2.0	32	A4 s/s
P0183.080-100-A2	M 8 x1,0	12	3	8.3	11.5	11	8	1.0	4	A2 s/s
P0183.100-100-A2	M10 x1,0	14	3	10.3	13.5	11	8	1.0	5	A2 s/s
P0183.120-150-A2	M12 x1,5	17	3	12.3	16.0	15	12	1.5	6	A2 s/s
P0183.140-150-A2	M14 x1,5	19	3	14.3	18.0	15	12	1.5	6	A2 s/s
P0183.160-150-A2	M16 x1,5	21	3	16.3	20.0	15	12	1.5	8	A2 s/s
P0183.180-150-A2	M18 x1,5	23	4	18.3	22.0	16	12	1.5	8	A2 s/s
P0183.200-150-A2	M20 x1,5	25	4	20.3	24.0	18	14	1.5	10	A2 s/s
P0183.220-150-A2	M22 x1,5	27	4	22.3	27.0	18	14	1.5	10	A2 s/s
P0183.240-150-A2	M24 x1,5	29	4	24.3	29.0	18	14	2.0	12	A2 s/s
P0183.260-150-A2	M26 x1,5	31	4	26.3	31.0	20	16	2.0	12	A2 s/s
P0183.270-200-A2	M27 x2,0	32	4	27.3	32.0	20	16	2.0	12	A2 s/s
P0183.300-150-A2	M30 x1,5	36	4	30.3	36.0	20	16	2.0	17	A2 s/s
P0183.300-200-A2	M30 x2,0	36	4	30.3	36.0	20	16	2.0	17	A2 s/s
P0183.G1/8-A2	G1/8"	14	3	10.0	13.5	11	8	1.0	5	A2 s/s
P0183.G1/4-A2	G1/4"	18	3	13.4	18.0	15	12	1.5	6	A2 s/s
P0183.G3/8-A2	G3/8"	22	3	17.0	21.0	15	12	1.5	8	A2 s/s
P0183.G1/2-A2	G1/2"	26	4	21.3	26.0	18	14	1.5	10	A2 s/s
P0183.G5/8-A2	G5/8"	28	4	24.0	28.0	18	14	1.5	12	A2 s/s
P0183.G3/4-A2	G3/4"	32	4	26.7	32.0	20	16	2.0	12	A2 s/s
P0183.G7/8-A2	G7/8"	36	4	29.4	36.0	20	16	2.0	12	A2 s/s
P0183.G1-A2	G1"	39	5	33.5	39.0	21	16	2.0	17	A2 s/s
P0183.G1-1/8-A2	G1-1/8"	44	5	36.2	44.0	21	16	2.0	19	A2 s/s
P0183.G1-1/4-A2	G1 1/4"	49	5	42.2	49.0	21	16	2.0	22	A2 s/s
P0183.G1-1/2-A2	G1-1/2"	55	5	48.1	55.0	21	16	2.0	24	A2 s/s
P0183.G1-3/4-A2	G1-3/4"	62	5	51.8	62.0	25	20	2.0	32	A2 s/s



Blanking Plugs with Collar

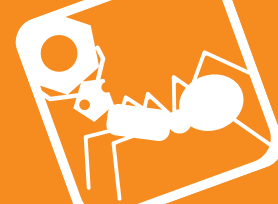
metric & BSPP

Blanking Plugs

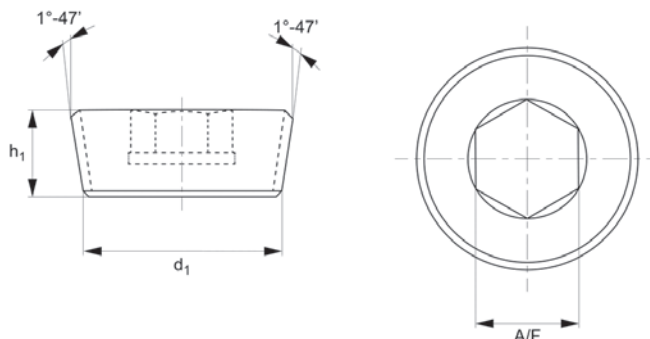


Order No.	d ₁ x p	d ₂ tol. h14	h ₁ ±0.5	d ₃	d ₄	l ₁	l ₂ ±0.2	t ₁	A/F	Material
P0183.G2-A2	G2"	68	5	54.5	68.0	25	20	2.0	32	A2 s/s
P0183.080-100-BR	M 8 x1,0	12	3	8.3	11.5	11	8	1.0	4	Brass
P0183.100-100-BR	M10 x1,0	14	3	10.3	13.5	11	8	1.0	5	Brass
P0183.120-150-BR	M12 x1,5	17	3	12.3	16.0	15	12	1.5	6	Brass
P0183.140-150-BR	M14 x1,5	19	3	14.3	18.0	15	12	1.5	6	Brass
P0183.160-150-BR	M16 x1,5	21	3	16.3	20.0	15	12	1.5	8	Brass
P0183.180-100-BR	M18 x1,0	23	4	18.3	22.0	16	12	1.5	8	Brass
P0183.180-150-BR	M18 x1,5	23	4	18.3	22.0	16	12	1.5	8	Brass
P0183.200-150-BR	M20 x1,5	25	4	20.3	24.0	18	14	1.5	10	Brass
P0183.220-150-BR	M22 x1,5	27	4	22.3	27.0	18	14	1.5	10	Brass
P0183.240-150-BR	M24 x1,5	29	4	24.3	29.0	18	14	2.0	12	Brass
P0183.260-150-BR	M26 x1,5	31	4	26.3	31.0	20	16	2.0	12	Brass
P0183.270-200-BR	M27 x2,0	32	4	27.3	32.0	20	16	2.0	12	Brass
P0183.300-150-BR	M30 x1,5	36	4	30.3	36.0	20	16	2.0	17	Brass
P0183.300-200-BR	M30 x2,0	36	4	30.3	36.0	20	16	2.0	17	Brass
P0183.330-200-BR	M33 x2,0	39	5	33.3	39.0	21	16	2.0	17	Brass
P0183.360-150-BR	M36 x1,5	42	5	36.3	42.0	21	16	2.0	19	Brass
P0183.360-200-BR	M36 x2	42	5	36.3	42.0	21	16	2.0	19	Brass
P0183.380-150-BR	M38 x1,5	44	5	38.3	44.0	21	16	2.0	19	Brass
P0183.420-150-BR	M42 x1,5	49	5	42.3	49.0	21	16	2.0	22	Brass
P0183.420-200-BR	M42 x2,0	49	5	42.3	49.0	21	16	2.0	22	Brass
P0183.450-200-BR	M45 x2,0	49	5	42.3	49.0	21	16	2.0	22	Brass
P0183.480-150-BR	M48 x1,5	55	5	48.3	55.0	21	16	2.0	24	Brass
P0183.480-200-BR	M48 x2,0	55	5	48.3	55.0	21	16	2.0	24	Brass
P0183.520-150-BR	M52 x1,5	60	5	52.3	60.0	21	16	2.0	24	Brass
P0183.520-200-BR	M52 x2	60	5	52.3	60.0	21	16	2.0	24	Brass
P0183.560-200-BR	M56 x2,0	64	5	56.3	64.0	25	20	2.0	32	Brass
P0183.600-200-BR	M60 x2,0	68	5	60.3	68.0	25	20	2.0	32	Brass
P0183.640-200-BR	M64 x2,0	72	5	64.3	72.0	25	20	2.0	32	Brass
P0183.G1/8-BR	G1/8"	14	3	10.0	13.5	11	8	1.0	5	Brass
P0183.G1/4-BR	G1/4"	18	3	13.4	18.0	15	12	1.5	6	Brass
P0183.G3/8-BR	G3/8"	22	3	17.0	21.0	15	12	1.5	8	Brass
P0183.G1/2-BR	G1/2"	26	4	21.3	26.0	18	14	1.5	10	Brass
P0183.G5/8-BR	G5/8"	28	4	24.0	28.0	18	14	1.5	12	Brass
P0183.G3/4-BR	G3/4"	32	4	26.7	32.0	20	16	2.0	12	Brass
P0183.G7/8-BR	G7/8"	36	4	29.4	36.0	20	16	2.0	12	Brass
P0183.G1-BR	G1"	39	5	33.5	39.0	21	16	2.0	17	Brass
P0183.G1-1/8-BR	G1-1/8"	44	5	36.2	44.0	21	16	2.0	19	Brass
P0183.G1-1/4-BR	G1 1/4"	49	5	42.2	49.0	21	16	2.0	22	Brass
P0183.G1-1/2-BR	G1-1/2"	55	5	48.1	55.0	21	16	2.0	24	Brass
P0183.G1-3/4-BR	G1-3/4"	62	5	51.8	62.0	25	20	2.0	32	Brass
P0183.G2-BR	G2"	68	5	54.5	68.0	25	20	2.0	32	Brass

BLANKING PLUGS



P0184



Material

Steel (self-colour & zinc-plated), stainless steel (A2 & A4), and brass.

Inch threads beginning with „R“ indicate BSPT (British Standard Pipe Taper threads ISO 7).

Tightening torque is dependent on fluid, pressure, temperature, and material pairing.

Technical Notes

To DIN 906. Metric fine taper threads.

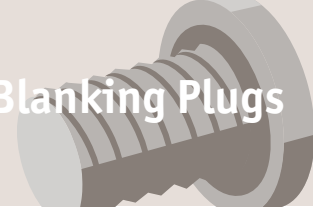
Order No.	d ₁	h ₁ tol. JS16	A/F	Material
P0184.060-100-ZP	M6 x1,0	6	3	Steel ZP
P0184.080-100-ZP	M8 x1,0	8	4	Steel ZP
P0184.100-100-ZP	M10 x1,0	8	5	Steel ZP
P0184.120-150-ZP	M12 x1,5	10	6	Steel ZP
P0184.140-150-ZP	M14 x1,5	10	7	Steel ZP
P0184.160-150-ZP	M16 x1,5	10	8	Steel ZP
P0184.180-150-ZP	M18 x1,5	10	8	Steel ZP
P0184.200-150-ZP	M20 x1,5	10	10	Steel ZP
P0184.220-150-ZP	M22 x1,5	10	10	Steel ZP
P0184.240-150-ZP	M24 x1,5	12	12	Steel ZP
P0184.260-150-ZP	M26 x1,5	12	12	Steel ZP
P0184.270-200-ZP	M27 x2,0	12	12	Steel ZP
P0184.300-150-ZP	M30 x1,5	12	17	Steel ZP
P0184.080-075-ZP	M8 x0,75	8	4	Steel ZP
P0184.080-125-ZP	M8 x1,25	8	4	Steel ZP
P0184.270-150-ZP	M27 x1,5	12	12	Steel ZP
P0184.300-200-ZP	M30 x2	12	17	Steel ZP
P0184.360-150-ZP	M36 x1,5	15	19	Steel ZP
P0184.420-150-ZP	M42x1,5	18	22	Steel ZP
P0184.520-150-ZP	M52 x1,5	20	24	Steel ZP
P0184.R1/8-ZP	R1/8"	8	5	Steel ZP
P0184.R1/4-ZP	R1/4"	10	7	Steel ZP
P0184.R3/8-ZP	R3/8"	10	8	Steel ZP
P0184.R1/2-ZP	R1/2"	10	10	Steel ZP
P0184.R5/8-ZP	R5/8"	10	10	Steel ZP
P0184.R3/4-ZP	R3/4"	12	12	Steel ZP
P0184.R1-ZP	R1"	12	17	Steel ZP
P0184.R1-1/4-ZP	R1 1/4"	18	22	Steel ZP
P0184.R1-1/2-ZP	R1 1/2"	20	24	Steel ZP
P0184.R2-ZP	R2"	22	32	Steel ZP
P0184.060-100-SC	M6 x1,0	6	3	Steel SC



Blanking Plugs

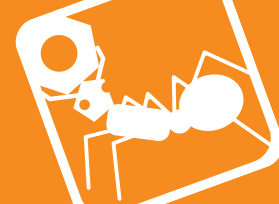
Metric & BSPT

Blanking Plugs



BLANKING PLUGS

Order No.	d ₁	h ₁ tol. JS16	A/F	Material
P0184.080-100-SC	M8 x1,0	8	4	Steel SC
P0184.080-125-SC	M8 x1,25	8	4	Steel SC
P0184.080-075-SC	M8 x0,75	8	4	Steel SC
P0184.100-100-SC	M10 x1,0	8	5	Steel SC
P0184.120-100-SC	M12 x1,0	10	6	Steel SC
P0184.120-150-SC	M12 x1,5	10	6	Steel SC
P0184.140-150-SC	M14 x1,5	10	7	Steel SC
P0184.160-150-SC	M16 x1,5	10	8	Steel SC
P0184.180-150-SC	M18 x1,5	10	8	Steel SC
P0184.200-150-SC	M20 x1,5	10	10	Steel SC
P0184.220-150-SC	M22 x1,5	10	10	Steel SC
P0184.240-150-SC	M24 x1,5	12	12	Steel SC
P0184.260-150-SC	M26 x1,5	12	12	Steel SC
P0184.270-150-SC	M27 x1,5	12	12	Steel SC
P0184.270-200-SC	M27 x2,0	12	12	Steel SC
P0184.300-150-SC	M30 x1,5	12	17	Steel SC
P0184.300-200-SC	M30 x2,0	12	17	Steel SC
P0184.330-150-SC	M33 x1,5	12	17	Steel SC
P0184.330-200-SC	M33 x2,0	12	17	Steel SC
P0184.360-150-SC	M36 x1,5	15	19	Steel SC
P0184.360-200-SC	M36 x2	15	19	Steel SC
P0184.380-150-SC	M38 x1,5	15	19	Steel SC
P0184.420-200-SC	M42 x2,0	18	22	Steel SC
P0184.450-150-SC	M45 x1,5	18	22	Steel SC
P0184.480-150-SC	M48 x1,5	20	24	Steel SC
P0184.420-150-SC	M42 x1,5	18	22	Steel SC
P0184.480-200-SC	M48 x2,0	20	24	Steel SC
P0184.520-150-SC	M52 x1,5	20	24	Steel SC
P0184.520-200-SC	M52 x2	20	24	Steel SC
P0184.560-200-SC	M56 x2,0	22	32	Steel SC
P0184.600-200-SC	M60 x2,0	22	32	Steel SC
P0184.R1/8-SC	R1/8"	8	5	Steel SC
P0184.R1/4-SC	R1/4"	10	7	Steel SC
P0184.R3/8-SC	R3/8"	10	8	Steel SC
P0184.R1/2-SC	R1/2"	10	10	Steel SC
P0184.R5/8-SC	R5/8"	10	10	Steel SC
P0184.R3/4-SC	R3/4"	12	12	Steel SC
P0184.R1-SC	R1"	12	17	Steel SC
P0184.R1-1/4-SC	R1 1/4"	18	22	Steel SC
P0184.R1-1/2-SC	R1 1/2"	20	24	Steel SC
P0184.R2-SC	R2"	22	32	Steel SC
P0184.060-100-A4	M6 x1,0	6	3	A4 s/s
P0184.080-075-A4	M8 x0,75	8	4	A4 s/s
P0184.080-100-A4	M8 x1,0	8	4	A4 s/s
P0184.080-125-A4	M8 x1,25	8	4	A4 s/s
P0184.100-100-A4	M10 x1,0	8	5	A4 s/s
P0184.120-150-A4	M12 x1,5	10	6	A4 s/s
P0184.140-150-A4	M14 x1,5	10	7	A4 s/s
P0184.160-150-A4	M16 x1,5	10	8	A4 s/s
P0184.180-150-A4	M18 x1,5	10	8	A4 s/s
P0184.200-150-A4	M20 x1,5	10	10	A4 s/s
P0184.220-150-A4	M22 x1,5	10	10	A4 s/s
P0184.240-150-A4	M24 x1,5	12	12	A4 s/s
P0184.260-150-A4	M26 x1,5	12	12	A4 s/s
P0184.270-200-A4	M27 x2,0	12	12	A4 s/s
P0184.300-150-A4	M30 x1,5	12	17	A4 s/s
P0184.330-200-A4	M33 x2	12	17	A4 s/s
P0184.360-150-A4	M36 x1,5	15	19	A4 s/s
P0184.360-200-A4	M36 x2	15	19	A4 s/s
P0184.420-150-A4	M42 x1,5	18	22	A4 s/s
P0184.420-200-A4	M42 x2	18	22	A4 s/s
P0184.480-150-A4	M48 x1,5	20	24	A4 s/s
P0184.R1/8-A4	R1/8"	8	5	A4 s/s
P0184.R1/4-A4	R1/4"	10	7	A4 s/s
P0184.R3/8-A4	R3/8"	10	8	A4 s/s
P0184.R1/2-A4	R1/2"	10	10	A4 s/s
P0184.R5/8-A4	R5/8"	10	10	A4 s/s
P0184.R3/4-A4	R3/4"	12	12	A4 s/s



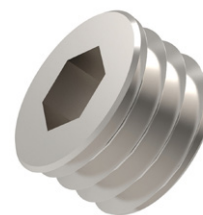
Order No.	d ₁	h ₁ tol. JS16	A/F	Material
P0184.R1-A4	R1"	12	17	A4 s/s
P0184.R1-1/4-A4	R1 1/4"	18	22	A2 s/s
P0184.R1-1/2-A4	R1 1/2"	20	24	A4 s/s
P0184.R2-A4	R2"	22	32	A4 s/s
P0184.R1/8-A2	R1/8"	8	5	A2 s/s
P0184.R1/4-A2	R1/4"	10	7	A2 s/s
P0184.R3/8-A2	R3/8"	10	8	A2 s/s
P0184.R1/2-A2	R1/2"	10	10	A2s/s
P0184.R3/4-A2	R3/4"	12	12	A2 s/s
P0184.R5/8-A2	R5/8"	12	12	A2 s/s
P0184.R1-A2	R1"	12	17	A2 s/s
P0184.R1-1/2-A2	R1 1/2"	20	24	A2 s/s
P0184.060-100-BR	M6 x1,0	6	3	Brass
P0184.080-075-BR	M8 x0,75	8	4	Brass
P0184.080-100-BR	M8 x1,0	8	4	Brass
P0184.080-125-BR	M8 x1,25	8	4	Brass
P0184.100-100-BR	M10 x1,0	8	5	Brass
P0184.120-150-BR	M12 x1,5	10	6	Brass
P0184.140-150-BR	M14 x1,5	10	7	Brass
P0184.160-150-BR	M16 x1,5	10	8	Brass
P0184.180-150-BR	M18 x1,5	10	8	Brass
P0184.200-150-BR	M20 x1,5	10	10	Brass
P0184.220-150-BR	M22 x1,5	10	10	Brass
P0184.240-150-BR	M24 x1,5	1	12	Brass
P0184.300-150-BR	M30 x1,5	12	17	Brass
P0184.300-200-BR	M30 x2	12	17	Brass
P0184.420-200-BR	M42 x2	18	22	Brass
P0184.R1/8-BR	R1/8"	8	5	Brass
P0184.R1/4-BR	R1/4"	10	7	Brass
P0184.R3/8-BR	R3/8"	10	8	Brass
P0184.R1/2-BR	R1/2"	10	10	Brass
P0184.R5/8-BR	R5/8"	10	10	Brass
P0184.R3/4-BR	R3/4"	12	12	Brass
P0184.R1-BR	R1"	12	17	Brass
P0184.R1-1/4-BR	R1 1/4"	18	22	Brass
P0184.R1-1/2-BR	R1 1/2"	20	24	Brass
P0184.R2-BR	R2"	22	32	Brass



Blanking Plugs - Level Seal

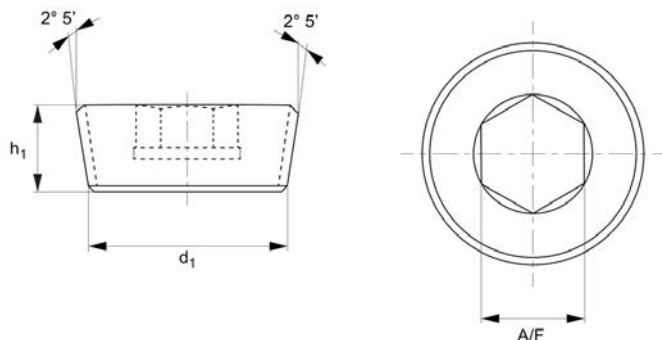
NPTF

Blanking Plugs



P0184.NL

BLANKING PLUGS



Material

Steel (self-colour), stainless steel (A4) and brass.

Technical Notes

The Level Seal pressure plug has a 2° 5' taper thread extending its entire length and designed to provide a flush condition

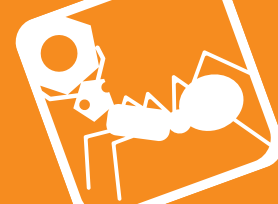
with a standard 1° 47' tapered hole. It achieves a high pressure seal through the difference in taper, with dimensions pre-calculated to provide a higher sealing load near the large end of the plug and the threads near the top of the tapped hole. It is used in applications where high pressures are encountered and where protrusion is undesirable.

Tightening torque is dependent on fluid, pressure, temperature, and material pairing.

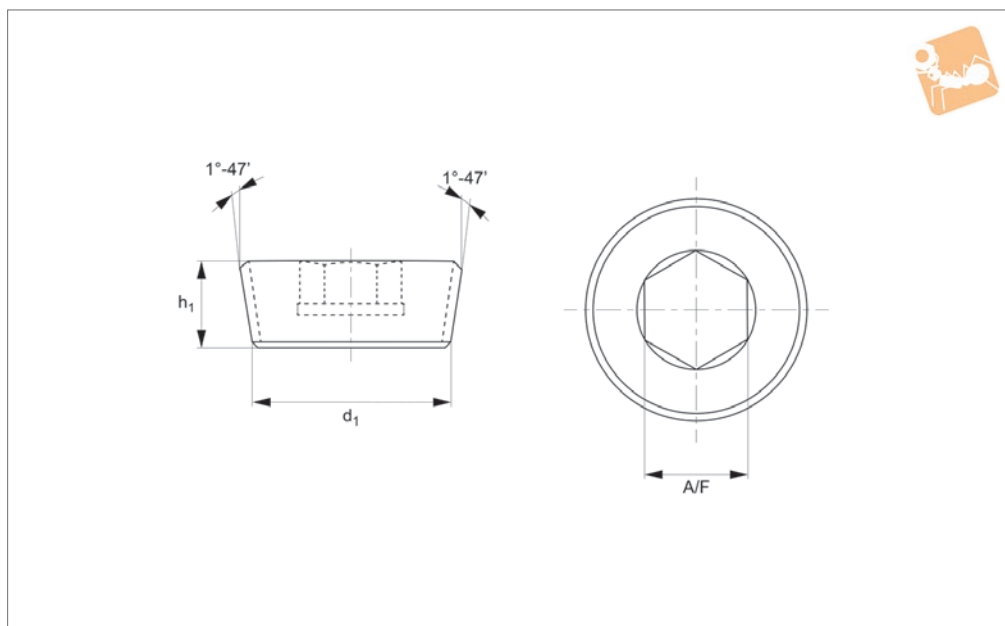
Important Notes

For dry seal type plug see part P0184.NPT.

Order No.	d ₁	tpi	d ₁ max.	l ₁ nom.	A/F	Material
P0184.NL1/16-BR	NPT1/16"	27.0	7.8	6.35	5/32	Brass
P0184.NL1/8-BR	NPT1/8"	27.0	10.2	6.35	3/16	Brass
P0184.NL1/4-BR	NPT1/4"	18.0	13.4	10.3	1/4	Brass
P0184.NL3/8-BR	NPT3/8"	18.0	16.9	10.3	5/16	Brass
P0184.NL1/2-BR	NPT1/2"	14.0	21.1	13.5	3/8	Brass
P0184.NL3/4-BR	NPT3/4"	14.0	26.4	13.5	9/16	Brass
P0184.NL1-BR	NPT1"	11.5	33.1	16.7	5/8	Brass
P0184.NL1-1/4-BR	NPT1 1/4"	11.5	41.8	16.7	3/4	Brass
P0184.NL1-1/2-BR	NPT1 1/2"	11.5	47.9	16.7	3/4	Brass
P0184.NL1/16-SC	NPT1/16"	27.0	7.8	6.35	5/32	Steel SC
P0184.NL1/8-SC	NPT1/8"	27.0	10.2	6.35	3/16	Steel SC
P0184.NL1/4-SC	NPT1/4"	18.0	13.4	10.3	1/4	Steel SC
P0184.NL3/8-SC	NPT3/8"	18.0	16.9	10.3	5/16	Steel SC
P0184.NL1/2-SC	NPT1/2"	14.0	21.1	13.5	3/8	Steel SC
P0184.NL3/4-SC	NPT3/4"	14.0	26.4	13.5	9/16	Steel SC
P0184.NL1-SC	NPT1"	11.5	33.1	16.7	5/8	Steel SC
P0184.NL1-1/4-SC	NPT1 1/4"	11.5	41.8	16.7	3/4	Steel SC
P0184.NL1-1/2-SC	NPT1 1/2"	11.5	47.9	16.7	3/4	Steel SC
P0184.NL1/16-A4	NPT1/16"	27.0	7.8	6.35	5/32	A4 s/s
P0184.NL1/8-A4	NPT1/8"	27.0	10.2	6.35	3/16	A4 s/s
P0184.NL1/4-A4	NPT1/4"	18.0	13.4	10.3	1/4	A4 s/s
P0184.NL3/8-A4	NPT3/8"	18.0	16.9	10.3	5/16	A4 s/s
P0184.NL1/2-A4	NPT1/2"	14.0	21.1	13.5	3/8	A4 s/s
P0184.NL3/4-A4	NPT3/4"	14.0	26.4	13.5	9/16	A4 s/s
P0184.NL1-A4	NPT1"	11.5	33.1	16.7	5/8	A4 s/s
P0184.NL1-1/4-A4	NPT1 1/4"	11.5	41.8	16.7	3/4	A4 s/s
P0184.NL1-1/2-A4	NPT1 1/2"	11.5	47.9	16.7	3/4	A4 s/s



P0184.NPT



Material

Steel (hardened or self-colour) and stainless steel (A4)

Technical Notes

To DIN 906. NPT (National Pipe Thread Taper) and NPTF (National Pipe Taper Fuel). The NPTF dry seal versions fit holes that are not as accurately tapped. Tightening torque is dependent on fluid, pressure, temperature, and material pairing.

Tips

NPTF threads will screw together with NPT threads and should have no noticeable assembly problem. There will most likely be an interference fit between the root and crest on either the major or minor diameter of the thread, depending on which part is NPTF. To accomplish a seal on the joint, a sealant will be required.

NPTF threads are designed to screw together. They are designed to have interference at the roots and crests of the

threads on both the major and minor diameters. This interference should cause no assembly problem. The thread deformation caused by the interference fit and the wrench tightening is designed to make a dry mechanical seal.

Important Notes

For level of flush type plug see part P0184.NL.

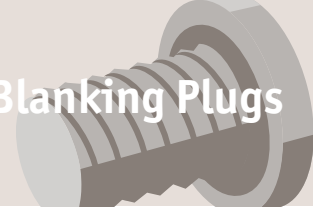
Order No.	d ₁	tpi	d ₁ max.	l ₁ nom.	A/F	Material
P0184.NPT1/16-A4	NPT1/16"	27.0	8.08	7.92	5/32	A4 s/s
P0184.NPT1/8-A4	NPT 1/8"	27.0	10.40	7.92	3/16	A4 s/s
P0184.NPT1/4-A4	NPT 1/4"	18.0	13.80	11.10	1/4	A4 s/s
P0184.NPT3/8-A4	NPT 3/8"	18.0	17.40	12.70	5/16	A4 s/s
P0184.NPT1/2-A4	NPT 1/2"	14.0	21.10	15.90	3/8	A4 s/s
P0184.NPT3/4-A4	NPT 3/4"	14.0	26.90	19.00	1/4	A4 s/s
P0184.NPT1-A4	NPT 1"	11.5	33.90	20.60	1/2	A4 s/s
P0184.NPT1-1/4-A4	NPT 1-1/4"	11.5	33.90	20.60	1/2	A4 s/s
P0184.NPT1/16-SC	NPT1/16"	27.0	8.08	7.92	5/32	Steel SC
P0184.NPT1/8-SC	NPT1/8"	27.0	10.40	7.92	3/16	Steel SC
P0184.NPT1/4-SC	NPT1/4"	18.0	13.80	11.10	1/4	Steel SC
P0184.NPT3/8-SC	NPT3/8"	18.0	17.40	12.70	5/16	Steel SC
P0184.NPT1/2-SC	NPT1/2"	14.0	21.50	15.90	3/8	Steel SC
P0184.NPT5/8-SC	NPT5/8"	14.0	21.50	15.90	3/8	Steel SC
P0184.NPT3/4-SC	NPT3/4"	14.0	26.90	19.00	1/4	Steel SC
P0184.NPT1-SC	NPT1"	11.5	33.90	20.60	1/2	Steel SC
P0184.NPT1-1/4-SC	NPT1 1/4"	11.5	42.60	20.60	3/4	Steel SC
P0184.NPT1-1/2-SC	NPT1 1/2"	11.5	48.70	20.60	1	Steel SC
P0184.NPT2-SC	NPT2"	11.5	48.70	20.60	1	Steel SC
P0184.NPTF1/16-HS	NPTF1/16"	27.0	8.08	7.92	5/32	Hardened steel
P0184.NPTF1/8-HS	NPTF1/8"	27.0	10.40	7.92	3/16	Hardened steel
P0184.NPTF1/4-HS	NPTF1/4"	18.0	13.80	11.10	1/4	Hardened steel
P0184.NPTF3/8-HS	NPTF3/8"	18.0	17.40	12.70	5/16	Hardened steel
P0184.NPTF1/2-HS	NPTF1/2"	14.0	21.50	14.30	3/8	Hardened steel



Blanking Plugs - Dry Seal

NPT and NPTF

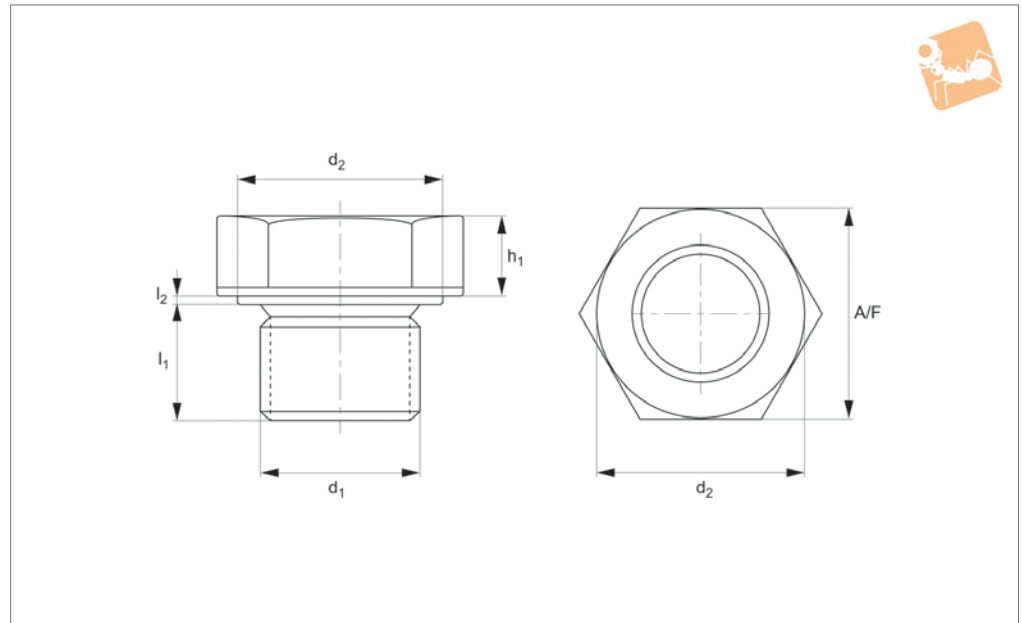
Blanking Plugs



Order No.	d ₁	tpi	d ₁ max.	l ₁ nom.	A/F	Material
P0184.NPTF3/4-HS	NPTF3/4"	14.0	26.90	15.90	1/8	Hardened steel
P0184.NPTF1-HS	NPTF1"	11.5	33.90	19.00	1/2	Hardened steel



P0187



Material

Steel (self-colour), stainless steel (A4, AISI 316) or brass.

Technical Notes

To DIN 7604A. Most metric screw plug

threads are fine threads.

Tightening torque is dependent on fluid, pressure, temperature, and material pairing.

Tips

Also available on request with O rings (NBR, Viton, EPDM, Silicone etc), permanent magnet, and polyamide melt seal under head.

Order No.	d ₁ x p	d ₂ tol. h14	h ₁	l ₁	l ₂ +0.2 -0	A/F	Material
P0187.100-100-ZP	M10 x1,0	14	4	6	0.5	14	Steel ZP
P0187.120-150-ZP	M12 x1,5	17	6	9	0.5	17	Steel ZP
P0187.140-150-ZP	M14 x1,5	19	6	9	0.5	19	Steel ZP
P0187.160-150-ZP	M16 x1,5	21	6	9	0.5	22	Steel ZP
P0187.180-150-ZP	M18 x1,5	23	6	9	2	17	Steel ZP
P0187.220-150-ZP	M22 x1,5	27	6	9	2	19	Steel ZP
P0187.260-150-ZP	M26 x1,5	31	8	9	2.5	22	Steel ZP
P0187.300-150-ZP	M30 x1,5	36	8	9	2.5	22	Steel ZP
P0187.100-100-A4	M10 x1,0	14	4	6	0.5	14	A4 s/s
P0187.120-150-A4	M12 x1,5	17	6	9	0.5	17	A4 s/s
P0187.140-150-A4	M14 x1,5	19	6	9	0.5	19	A4 s/s
P0187.160-150-A4	M16 x1,5	21	6	9	0.5	22	A4 s/s
P0187.180-150-A4	M18 x1,5	23	6	9	2	17	A4 s/s
P0187.220-150-A4	M22 x1,5	27	6	9	2	19	A4 s/s
P0187.260-150-A4	M26 x1,5	31	8	9	2.5	22	A4 s/s
P0187.300-150-A4	M30 x1,5	36	8	9	2.5	22	A4 s/s
P0187.100-100-BR	M10 x1,0	14	4	6	0.5	14	Brass
P0187.120-150-BR	M12 x1,5	17	6	9	0.5	17	Brass
P0187.140-150-BR	M14 x1,5	19	6	9	0.5	19	Brass
P0187.160-150-BR	M16 x1,5	21	6	9	0.5	22	Brass
P0187.180-150-BR	M18 x1,5	23	6	9	2	17	Brass
P0187.220-150-BR	M22 x1,5	27	6	9	2	19	Brass
P0187.260-150-BR	M26 x1,5	31	8	9	2.5	22	Brass
P0187.300-150-BR	M30 x1,5	36	8	9	2.5	22	Brass
P0187.100-100-SC	M10 x1,0	14	4	6	0.5	14	Steel SC
P0187.120-150-SC	M12 x1,5	17	6	9	0.5	17	Steel SC
P0187.140-150-SC	M14 x1,5	19	6	9	0.5	19	Steel SC
P0187.160-150-SC	M16 x1,5	21	6	9	0.5	22	Steel SC
P0187.180-150-SC	M18 x1,5	23	6	9	2	17	Steel SC
P0187.220-150-SC	M22 x1,5	27	6	9	2	19	Steel SC
P0187.260-150-SC	M26 x1,5	31	8	9	2.5	22	Steel SC
P0187.300-150-SC	M30 x1,5	36	8	9	2.5	22	Steel SC



P0182

Hex head screw blanking plugs
DIN 910



P0183

Hex socket screw blanking plugs
DIN 908



P0184

Hex socket taper blanking plugs
DIN 906



P0184.NPT

Hex socket blanking plugs NPT
and NPTF dry seal



P0184.NL

Hex socket blanking plugs level
seal



P0187

Hexagon blanking plugs DIN
7604 A

Threads

Blanking plugs come with either metric or inch threads. Most metric threads are fine threads (to DIN 13).

Inch threads come in four types:

G indicates BSPP British Standard pipe parallel (to ISO 288)

R indicates BSPT British Standard pipe taper (to ISO 7)

NPT indicates National Standard pipe taper (to ANSI B1.20.1)

NPTF indicates National Standard pipe taper fuel dry seal (to ANSI B1.20.3)

NL indicates National Standard pipe taper fuel level seal (to ANSI B1.20.3)

Materials

Blanking Plugs are available in three material types:

Steel (untreated or zinc plated)

Stainless steel (A2, AISI 303 and A4, AISI 316)

Brass

Options: with built-in magnet or with NBR seal and O Ring.

NPT and NPTF pipe threads

The two most common US standard taper pipe threads used are National Pipe Taper (NPT) and National Pipe Taper Fuel (NPTF). Applications range from electrical conduits and hand railings to high-pressure pipe lines that carry gas or caustic fluids. NPT threads are for mechanical or low-pressure air or fluid applications and often require the use of sealing compounds like Teflon tape, to provide the seal. When the application is more critical, and the sealing compound may fail due to high heat or pressure, NPTF Dryseal threads are used. This mechanical seal is produced by the mating and slight crushing of the threads when a wrench is applied to tighten the fittings.