

PRESSURE PERFORMANCE

Series MB / CV

Series MB 600 mm	Base Material of the Installation						
	①	②	③	⑤	⑥	⑦	⑧
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AISI7Mg EN AC-42100
Ø 3 – 10	1400 bar / 20300 psi		450 bar / 6500 psi		1200 bar / 17400 psi		380 bar / 5500 psi
Ø 12 – 14	1000 bar / 14500 psi		350 bar / 5100 psi		900 bar / 13000 psi		280 bar / 4100 psi
Hole Tolerance	0 / +0,1 mm						
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Metal			

Series MB 600 Inch	Base Material of the Installation						
	①	②	③	⑤	⑥	⑦	⑧
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AISI7Mg EN AC-42100
Ø 0.093 – 0.281	1400 bar / 20300 psi		450 bar / 6500 psi		1200 bar / 17400 psi		380 bar / 5500 psi
Hole Tolerance	0,093 0 / +0,002 Inch from Ø 0,125 0 / +0,004 Inch						
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Metal			

Series MB 700 mm	Base Material of the Installation						
	①	②	③	⑤	⑥	⑦	⑧
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AISI7Mg EN AC-42100
Ø 3 – 10	1400 bar / 20300 psi		450 bar / 6500 psi		1200 bar / 17400 psi		380 bar / 5500 psi
Ø 12 – 22	1150 bar / 16700 psi		350 bar / 5100 psi		900 bar / 13000 psi		280 bar / 4100 psi
Hole Tolerance	0 / +0,1 mm						
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Metal			

Series MB 850 mm	Base Material of the Installation						
	①	②	③	⑤	⑥	⑦	⑧
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AISI7Mg EN AC-42100
Ø 3 – 10	1100 bar / 16000 psi		350 bar / 5100 psi		1000 bar / 14500 psi		320 bar / 4600 psi
Ø 12 – 22	900 bar / 13000 psi		280 bar / 4100 psi		800 bar / 11600 psi		250 bar / 3600 psi
Hole Tolerance	0 / +0,1 mm						
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Metal			

Series CV 173 mm	Base Material of the Installation				
	①	③	④	⑥	⑧
	Steel ETG-100	CI GJS 600	CI 65-45-12	Al 2024-T4	Al A356
Ø 3 – 10				650 bar / 9400 psi 210 bar / 3000 psi	
Ø 12				300 bar / 4300 psi 100 bar / 1500 psi	
Hole Tolerance	0 / +0,1 mm				
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Material	

Series CV 588 mm	Base Material of the Installation				
	①	③	④	⑥	⑧
	Steel ETG-100	CI GJS 600	CI 65-45-12	Al 2024-T4	Al A356
Ø 4 – 9		1000 bar / 14500 psi	350 bar / 5000 psi		
Ø 10		860 bar / 12500 psi	280 bar / 4000 psi		
Hole Tolerance	0 / +0,1 mm				
Hole Roughness	R _z 10 – 30 µm			Anchorage in Base Material	

Proof Pressure Test® Max. Allowable Working Pressure = Nominal Pressure

See Anchorage Principles related to the base materials on page 72.

PRESSURE PERFORMANCE

Series SK / LP / LK / RE

Series SK mm	Base Material of the Installation							
	①	②	③	⑤	⑥	⑦	⑧	
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AlSi7Mg EN AC-42100	
Ø 4 – 10	1600 bar / 23200 psi				500 bar / 7200 psi		1400 bar / 20300 psi	450 bar / 6500 psi
Ø 12	1600 bar / 23200 psi				400 bar / 5800 psi			
Hole Tolerance	0 / +0,12 mm							
Hole Roughness	R _z 10 – 30 µm				Anchorage in Base Metal			

If SK plugs are used to keep channels separated, allowable working pressure on the insertion side is reduced by 50%.

Series LP mm	Base Material of the Installation							
	①	②	③	⑤	⑥	⑦	⑧	
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AlSi7Mg EN AC-42100	
Ø 4 – 12	180 bar / 2600 psi				60 bar / 850 psi			
Hole Tolerance	According to Data Sheet							
Hole Roughness	R _z 10 – 30 µm				Anchorage in Base Metal			

① ② ③ ⑤ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 150 °C ⑥ ⑦ ⑧ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 100 °C

Series LK 600 mm	Base Material of the Installation							
	①	②	③	⑤	⑥	⑦	⑧	
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AlSi7Mg EN AC-42100	
Ø 4 – 10	180 bar / 2600 psi				60 bar / 850 psi			
Hole Tolerance	0 / +0,12 mm							
Hole Roughness	R _z 10 – 30 µm				Anchorage in Base Metal			

① ② ③ ⑤ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 150 °C ⑥ ⑦ ⑧ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 100 °C

Series LK 950 mm	Base Material of the Installation							
	①	②	③	⑤	⑥	⑦	⑧	
	ETG-100 / 44SMn28 AISI 1144	C15Pb 1.0403	EN-GJS-600-3 EN 1563	EN-GJL-250 EN 1561	AlCu4Mg1 EN AW-2024-T3	AlMgSiPb EN AW-6012-T6	G-AlSi7Mg EN AC-42100	
Ø 4 – 10	180 bar / 2600 psi				60 bar / 850 psi			
Hole Tolerance	0 / +0,12 mm							
Hole Roughness	R _z 10 – 30 µm				Partial Anchorage in Base Metal		Anchorage in Base Metal	

① ② ③ ⑤ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 150 °C ⑥ ⑦ ⑧ Temperature range for proof pressure test[Ⓢ]: – 40 °C to + 100 °C

KOENIG EXPANDER® sealing plugs series LK are not suitable for pressure load applied on the insertion side of the plug. For special release contact SFC KOENIG.

Series RE mm	Base Material of the Installation			
	①	④	⑤	⑦
	AISI 1144 High Strength Steel	Dura-Bar® 65-45-12 Ductile Cast Iron	AA 2024 Aluminum Alloy	A356 Cast Aluminum Alloy
Ø 4	120 bar / 1740 psi			100 bar / 1450 psi
Ø 5	180 bar / 2610 psi			150 bar / 2175 psi
Ø 6	210 bar / 3045 psi			150 bar / 2175 psi
Ø 7–8	210 bar / 3045 psi			180 bar / 2610 psi
Ø 9–10	Please Contact Us for Details			

Proof Pressure Test[Ⓢ] Max. Allowable Working Pressure = Nominal Pressure

Hard Base Material: To achieve the allowable working pressure, anchorage to the bore roughness of the base material is required. **Roughness R_z = 10 – 30 µm.**

Soft Base Material: Anchorage to the bore of the base material occurs automatically due to the serrations on the sleeve of the KOENIG EXPANDER®.

Transition Zone: To achieve the allowable working pressure, anchorage to the bore roughness of the base material is required. **Roughness R_z = 10 to 30 µm.**

See Anchorage Principles related to the base materials on page 72.