

ABRASOR[®]

XJ40 Series Quad Arch Expansion Joint



**Move more
last longer.**

Where movement meets extreme durability

Abrator slurry expansion joints are purpose built for demanding mining applications where movement, vibration and abrasive slurry need to be managed within the same piping system.

Unlike conventional expansion joints designed primarily for water or general industrial service, Abrator expansion joints combine heavy duty flexible construction with abrasion resistant rubber compounds, providing the movement required to protect pumps and pipework without compromising wear life.

Each expansion joint can be manufactured to suit the specific requirements of the installation, including diameter, overall length, pressure, liner thickness, arch configuration and required movement. Single, double, triple and quad arch configurations allow the joint to accommodate varying levels of axial, lateral and angular movement.

Manufactured in Australia under our ISO 9001 certified quality management system, every Abrator expansion joint is built, inspected and tested to controlled standards for consistent performance in demanding slurry service.



Abrasion Resistant

Our exclusive Abrasatech compound is one of the lowest abrasion loss compounds used in expansion joint applications worldwide. We only select the most premium quality materials for our manufacturing process.



Built For Movement

Purpose-built configurations accommodate axial, lateral and angular movement while helping isolate vibration and reduce stress transferred into pumps and pipework.



Custom Manufactured

Manufactured in Australia to suit the application, with custom diameters, lengths, liner thicknesses, pressure ratings and single, double or triple arch configurations available.

XJ40-SERIES QUAD ARCH EXPANSION JOINT

ABRASOR®

Abrasor XJ40 Series Quad Arch Expansion Joints are designed for superior performance in high pressure and or high abrasion slurry piping applications. Commonly used in high stress areas of mining plants, Abrasor expansion joints are constructed to *reduce or eliminate noise, vibration, misalignment, offset, and thermal expansion in piping applications*

Built around our exclusive Abrasatech wear liner, Abrasor delivers industry leading abrasion loss performance, significantly extending service life in severe duty applications. Manufactured in Australia, Abrasor is the product of choice for mine sites across the world.



TECHNICAL SPECIFICATIONS

Arch Type	Unfilled Filled
Hose size	DN25 – DN1200
Length	Custom to suit application
Pressure rating	-100kPa - +8000kPa
End connections	Fixed flange Swivel flange (beaded) Plain
Flange patterns	AS2129, ASME B16.5, ASME B16.47, AWWA C207, AS4087, BS EN 1092, BS 3293, JIS B2220, SANS 1123, DIN ISO 7005, custom
Safety factor	4:1
Temperature rating	-30 to +80 (ABRASATECH)
Optional extras	Control Rods Anti-static wire Wear monitor ID tagging

MATERIAL SPECIFICATIONS

Inner Liner	ABRASATECH (for high wear slurry) QUARRYTECH (for fine sands slurry) ROCKTECH (for large rock slurry) NITRILE (for slurry containing hydrocarbons) FLOWTECH (for high temp or acidic slurry) BUTATECH (for high acidic media) HYPATECH (for high acidic or high temp media)
Outer cover	ABRASATECH (for abrasion and UV resistance) NEOTECH FRAS (for FRAS or oily environments) FLOWTECH (for extreme UV or seawater)
Connection material	Hot dipped gal (as standard) Stainless steel (SS316, SS304) Carbon steel Painted Custom

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TECHNICAL PROPERTIES

UNFILLED ARCH

HOSE SIZE		STANDARD LINER THICKNESS	MAX LINER THICKNESS	STANDARD WORKING PRESSURE		MAX WORKING PRESSURE		SAFETY FACTOR	AXIAL COMPRESSION	AXIAL EXTENSION	LATERAL DEFLECTION
DN	mm	mm	mm	kPa	PSI	kPa	PSI	Ratio	mm	mm	mm
50	50.8	6	6	1000	145	8000	1160	4:1	160	60	80
80	76.2	6	9	1000	145	8000	1160	4:1	160	60	80
100	101.6	6	12	1000	145	8000	1160	4:1	160	60	80
125	127	6	12	1000	145	8000	1160	4:1	160	60	80
150	152.4	6	12	1000	145	8000	1160	4:1	160	60	80
200	203.2	6	12	1000	145	8000	1160	4:1	160	60	80
250	254	9	15	1000	145	8000	1160	4:1	160	60	80
300	304.8	9	19	1000	145	6000	870	4:1	160	60	80
350	355.6	9	19	1000	145	6000	870	4:1	160	60	80
400	406.4	12	19	1000	145	5000	725	4:1	160	60	80
450	457.2	12	19	1000	145	4000	580	4:1	160	60	80
500	508	12	19	1000	145	4000	580	4:1	160	60	80
550	558.8	12	19	1000	145	4000	580	4:1	160	60	80
600	610	12	19	1000	145	4000	580	4:1	160	60	80
650	660.4	15	19	700	102	2500	363	4:1	160	60	80
700	711.2	15	19	700	102	2500	363	4:1	160	60	80
750	762	15	19	700	102	2500	363	4:1	160	60	80
800	812.8	15	25	700	102	2500	363	4:1	160	60	80
850	863.6	15	25	700	102	2500	363	4:1	160	60	80
900	914.4	15	25	700	102	2500	363	4:1	160	60	80
950	965.2	15	25	700	102	2500	363	4:1	160	60	80
1000	1016	18	30	700	102	2500	363	4:1	160	60	80
1050	1066.8	18	30	700	102	2500	363	4:1	160	60	80
1100	1117.2	18	30	700	102	2500	363	4:1	160	60	80
1150	1168.4	18	32	700	102	2500	363	4:1	160	60	80
1200	1219.2	18	32	700	102	2500	363	4:1	160	60	80

Key notes

1.
- Movement data is approximate and should be used as a guide only. Each expansion joint is custom manufactured, and movement capability will vary depending on the final design and construction.
2.
- Filled arch expansion joints will have movement capability reduced by up to 50% compared with an equivalent unfilled arch design.
3.
- Joints can be fully customised to non-standard specifications, including inside diameter, liner thickness and working pressure.
4.
- Standard liner thickness is based on a high abrasion slurry application. For non-abrasive application a 3mm liner will be suitable

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