

MPC™ SERIES CONNECTOR

The MPC™ series couplings add ease of use and security to critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs, in sizes to fit 1/8" to 3/8" tubing. MPC couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected to reduce tube kinks.

SPECIFICATIONS

OPERATING PRESSURE:

Vacuum to 60 psi, 4.1 bar

OPERATING TEMPERATURE:

ABS:

-40°F to 160°F (-40°C to 71°C)

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main components:

ABS (white), USP Class VI, Polycarbonate (purple tint), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

Locking sleeves:

Polysulfone (white), USP Class VI, ADCF

Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF Polysulfone (amber tint), USP Class VI, ADCF

O-rings: Silicone (clear), platinum-cured, USP Class VI, ADCF and Buna-N (black)

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

Polycarbonate: Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

TUBING SIZES:

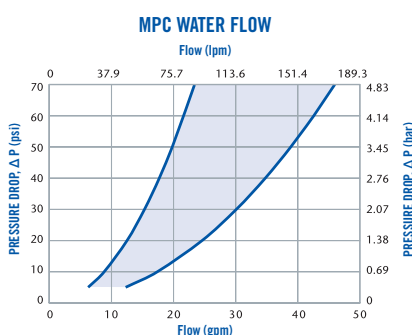
1/8" to 3/8" ID (3.2mm to 9.5mm)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

FEATURES

- | | | |
|--|---|--|
| Ergonomic thumb latch | → | Easy to operate – even with gloved hands |
| USP Class VI materials | → | Meet biocompatibility requirements |
| Sterilizable by autoclave, EtO, e-beam, or gamma | → | Reusable, yet economical enough to allow disposability |
| Parting line-free hose barb | → | Eliminates potential leak path |
| ADCF-free materials | → | Meet BSE/TSE requirements |

BENEFITS



This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.



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NOTE

MPC Series mates with Back-to-Back Adapters, SaniQuik™ and Sanitary Series.








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MPC™ SERIES DIMENSIONS

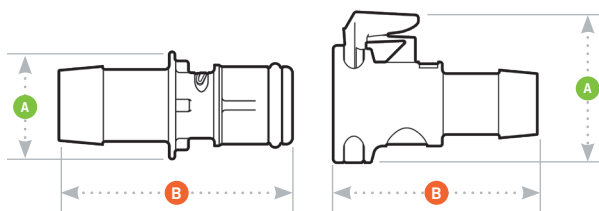
COUPLING BODIES - ABS / Polycarbonate / Polysulfone

	TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
	ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC17004T		0.96 (24.4)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC17006T		0.96 (24.4)	1.3 (33.0)
	POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T03		0.96 (24.4)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPC17004T03		0.96 (24.4)	1.1 (27.9)
		3/8" ID	9.5mm ID	0.29"	MPC17006T03		0.96 (24.4)	1.1 (27.9)
	POLYCARBONATE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T03		0.99 (25.1)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPCK17004T03		0.99 (25.1)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPCK17006T03		0.99 (25.1)	1.3 (33.0)
	POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC17002T39		0.96 (24.4)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPC17004T39		0.96 (24.4)	1.1 (27.9)
		3/8" ID	9.5mm ID	0.29"	MPC17006T39		0.96 (24.4)	1.1 (27.9)
	POLYSULFONE IN-LINE HOSE BARB WITH LOCK	1/8" ID	3.2mm ID	0.09"	MPCK17002T39		0.99 (25.1)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPCK17004T39		0.99 (25.1)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPCK17006T39		0.99 (25.1)	1.3 (33.0)

COUPLING INSERTS - ABS / Polycarbonate / Polysulfone

	TERMINATION	TUBING SIZE	METRIC EQ	FLOW	STRAIGHT THRU	O-RINGS	A	B
	ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC22006TM	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	ABS IN-LINE HOSE BARB	1/4" ID	6.4mm ID	0.21"	MPC22004T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC22006T	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	POLYCARBONATE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPC22004T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC22006T03M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
	POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T03	Buna-N Seal USP Class V	0.6 (15.2)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPC22004T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC22006T03	Buna-N Seal USP Class V	0.6 (15.2)	1.3 (33.0)
	POLYSULFONE IN-LINE HOSE BARB	1/8" ID	3.2mm ID	0.09"	MPC22002T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.1 (27.9)
		1/4" ID	6.4mm ID	0.21"	MPC22004T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)
		3/8" ID	9.5mm ID	0.29"	MPC22006T39M	Silicone Seal USP Class VI	0.6 (15.2)	1.3 (33.0)

PRODUCT DIMENSIONS



A = Height/Diameter

B = Total Length

MPC™ SERIES CONNECTOR (CONT.)

ADAPTORS



SEALING CAP	W/LOCK	MATERIAL	A	B
MPC32003	MPCK32003	Polycarbonate	0.96 (24.4 mm)	1.3 (33.0 mm)
MPC32039	MPCK32039	Polysulfone	0.99 (25.1 mm)	1.3 (33.0 mm)

SEALING PLUG	O-RING	MATERIAL	A	B
MPC30003M	Silicone Seal USP Class VI	Polycarbonate	0.75 (19.1 mm)	1.24 (31.5 mm)
MPC30039M	Silicone Seal USP Class VI	Polysulfone	0.75 (19.1 mm)	1.24 (31.5 mm)

PART NO.	DESCRIPTION	MATERIAL
MPC30L	Leash plug for MPC body	Soft, flexible, medical-grade PVC
MPC32L	Leash plug for MPC insert	Soft, flexible, medical-grade PVC

LIQUID FLOW RATE INFORMATION FOR COUPLINGS

The chart below shows the flow rate for CPC couplings. Each coupling was tested with water at 70°F (21°C). To determine flow rates for specific coupling configurations use the formula below.

C_v VALUES

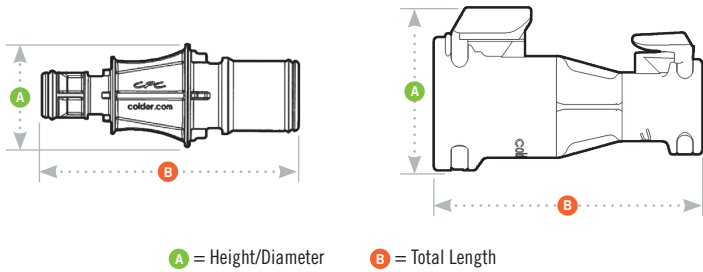
INSERTS

	MPC22002T03	MPC22004T03	MPC22006T03
BODIES			
MPC17002T03	0.11	-	0.21
MPC17004T03	-	2.8	2.8
MPC17006T03	0.14	2.8	5.5

$$Q = C_v \sqrt{\frac{\Delta P}{S}}$$

Q = Flow rate in gallons per minute
 C_v = Average coefficient across various flow rates (see chart)
 ΔP = Pressure drop across coupling (psi)
 S = Specific gravity of liquid

BACK-TO-BACK PRODUCT DIMENSIONS



MPX[®]

SERIES CONNECTOR

MPX[®] Series couplings add ease of use and security to your most critical fluid handling applications. Choose from a full line of connectors and configurations, including pressure sealing caps and plugs in sizes to fit 3/8" and 1/2" tubing. MPX couplings offer optional locking sleeves to further guard against accidental disconnects. In addition, coupling halves can be rotated when connected reducing tube kinks.



SPECIFICATIONS

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main components:

Polycarbonate (purple tint), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

Locking sleeves:

Polysulfone (white), USP Class VI, ADCF

Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

O-rings: Silicone (clear), platinum-cured,

USP Class VI, ADCF

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

Polycarbonate: Up to 250°F (121°C), 30 minutes, up to 10 repetitions. Sterilize uncoupled only.

Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions. Sterilize uncoupled only.

TUBING SIZES:

3/8" to 1/2" ID (9.5mm to 12.7mm)

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

FEATURES

Ergonomic thumb latch

USP Class VI materials

Sterilizable by autoclave, EtO, e-beam, or gamma

Parting line-free hose barb

ADCF-free materials

BENEFITS

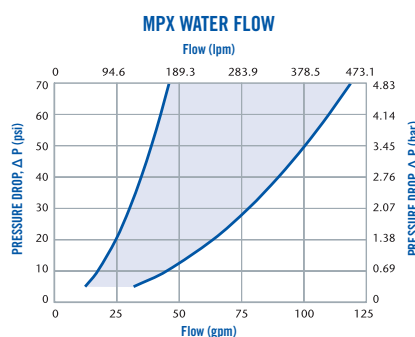
Easy to operate – even with gloved hands

Meet biocompatibility requirements

Reusable, yet economical enough to allow disposability

Eliminates potential leak path

Meet BSE/TSE requirements



This graph is intended to give you a general idea of the performance capabilities of each product line. The shaded area of the graph represents the operating range of the product family, i.e. upper and lower values are shown. Therefore, depending on the exact coupling configurations selected, you can reasonably expect values to fall within the shaded area.

NOTE

MPX Series also mates with Back to Back Adapters



SCAN

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MPX® SERIES DIMENSIONS


COUPLING BODIES - Polycarbonate

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
 IN-LINE HOSE BARB	1/2" ID	12.7mm ID	0.50"	MPX17803	1.28 (32.5)	1.96 (49.8)
 IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	0.50"	MPXK17803	1.28 (32.5)	1.96 (49.8)


COUPLING BODIES - Polysulfone

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	A	B
 IN-LINE HOSE BARB	1/2" ID	12.7mm ID	0.50"	MPX17839	1.28 (32.5)	1.96 (49.8)
 IN-LINE HOSE BARB WITH LOCK	1/2" ID	12.7mm ID	0.50"	MPXK17839	1.28 (32.5)	1.96 (49.8)

COUPLING INSERTS - Polycarbonate

TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
 IN-LINE HOSE BARB	3/8" ID	9.5mm ID	0.38"	MPX22603M	Silicone Seal USP Class VI	0.85 (21.6)	1.9 (48.3)
	1/2" ID	12.7mm ID	0.50"	MPX22803M	Silicone Seal USP Class VI	0.85 (21.6)	1.9 (48.3)

COUPLING INSERTS - Polysulfone

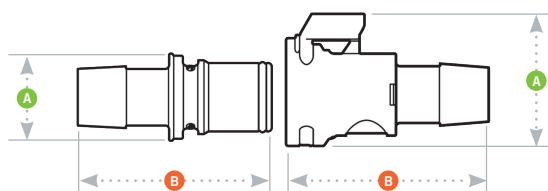
TERMINATION	TUBING	METRIC EQ.	FLOW	STRAIGHT THRU	O-RING	A	B
 IN-LINE HOSE BARB	3/8" ID	9.5mm ID	0.38"	MPX22639M	Silicone Seal USP Class VI	0.85 (21.6)	1.9 (48.3)
	1/2" ID	12.7mm ID	0.50"	MPX22839M	Silicone Seal USP Class VI	0.85 (21.6)	1.9 (48.3)

MATING PARTS

SEALING CAP	W/LOCK	MATERIAL	A	B
MPX32003	MPXK32003	Polycarbonate	1.28 (32.5)	1.67 (42.4)
MPX32039	MPXK32039	Polysulfone	1.28 (32.5)	1.67 (42.4)
SEALING PLUG	O-RING	MATERIAL	A	B
MPX30003M	Silicone Seal USP Class VI	Polycarbonate	1.1 (27.9)	1.66 (42.2)
MPX30039M	Silicone Seal USP Class VI	Polysulfone	1.1 (27.9)	1.66 (42.2)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

PRODUCT DIMENSIONS



A = HEIGHT/DIAMETER
B = TOTAL LENGTH

WARRANTY: All sales are subject to Colder Products Company's limited express warranty set forth in the CPC catalog. Contact your local distributor or CPC Customer Service for warranty provisions.

Warning: Due to the wide variety of possible fluid media and operating conditions, unintended consequences may result from the use of this product, all of which are beyond the control of CPC. It is the user's responsibility to carefully determine and test for compatibility for use with their application. All such risks shall be assumed by the buyer.

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CAT2021-MPX-128129 Rev. 06/22

BACK-TO-BACK SERIES CONNECTOR



MPC™/MPX® Back-to-Back Adapters give end users the flexibility of connecting single-use systems that feature identical coupling connections at the end of their tubing. Combining both MPC and MPX couplings provides a reducing option for users who need to transition between tubing diameters ranging from 1/8" to 1/2".

FEATURES

Compatible with MPC and MPX Series inserts

Tubing reduction option

Ergonomic thumb latches

ADCF-free materials

BENEFITS

Easy conversion to industry standard connections or single-use systems

Allows easy transition between multiple size tubing from 1/8" to 1/2" ID

Easy to operate - even with gloved hands

Meet BSE/TSE requirements

BACK-TO-BACK INSERT ADAPTORS - Polysulfone



PART NO.	TYPE	A	B
MPC22C2239M	MPC to MPC	0.74 (18.8)	2.04 (51.8)
MPC22X2239M	MPC to MPX	0.98 (24.9)	2.42 (61.5)
MPX22X2239M	MPX to MPX	0.98 (24.9)	2.73 (69.3)

BACK-TO-BACK BODY ADAPTORS - Polycarbonate



PART NO.	TYPE	A	B
MPC17C1703	MPC to MPC	0.96 (24.4)	1.81 (46.0)
MPX17X1703	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1703	MPC to MPX	1.28 (32.5)	2.13 (54.1)

BACK-TO-BACK BODY ADAPTORS - Polysulfone



PART NO.	TYPE	A	B
MPC17C1739	MPC to MPC	0.96 (24.4)	1.81 (46.0)
MPX17X1739	MPX to MPX	1.28 (32.5)	2.44 (62.0)
MPC17X1739	MPC to MPX	1.28 (32.5)	2.13 (54.1)

All measurements are in inches (millimeters) unless otherwise noted. Tubing must meet stated inside and outside diameters.

SPECIFICATIONS

PRESSURE:

Vacuum to 60 psi, 4.1 bar

TEMPERATURE:

Polycarbonate:

-40°F to 250°F (-40°C to 121°C)

Polysulfone:

-40°F to 300°F (-40°C to 149°C)

MATERIALS:

Main Components:

Polycarbonate (purple tint), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

Thumb Latches:

Polycarbonate (white), USP Class VI, ADCF

Polysulfone (amber tint), USP Class VI, ADCF

O-rings:

Silicone (clear), platinum-cured, USP Class VI, ADCF

STERILIZATION:

Gamma: Up to 50 kGy irradiation

Autoclave:

Polycarbonate: Up to 250°F (121°C) for 30 minutes, up to 10 repetitions.

Sterilize uncoupled only.

Polysulfone: Up to 270°F (132°C) for 60 minutes, up to 25 repetitions.

Sterilize uncoupled only.

WARNING: Pressure, temperature, chemicals, and operating environment can affect the performance of couplings. It is the customer's responsibility to test the suitability of CPC's products in their own application conditions.

NOTE

Mates with MPC and MPX bodies, inserts and sealing caps and plugs (pages 124-128).



cpcworldwide.com/Back-to-back-Adapters



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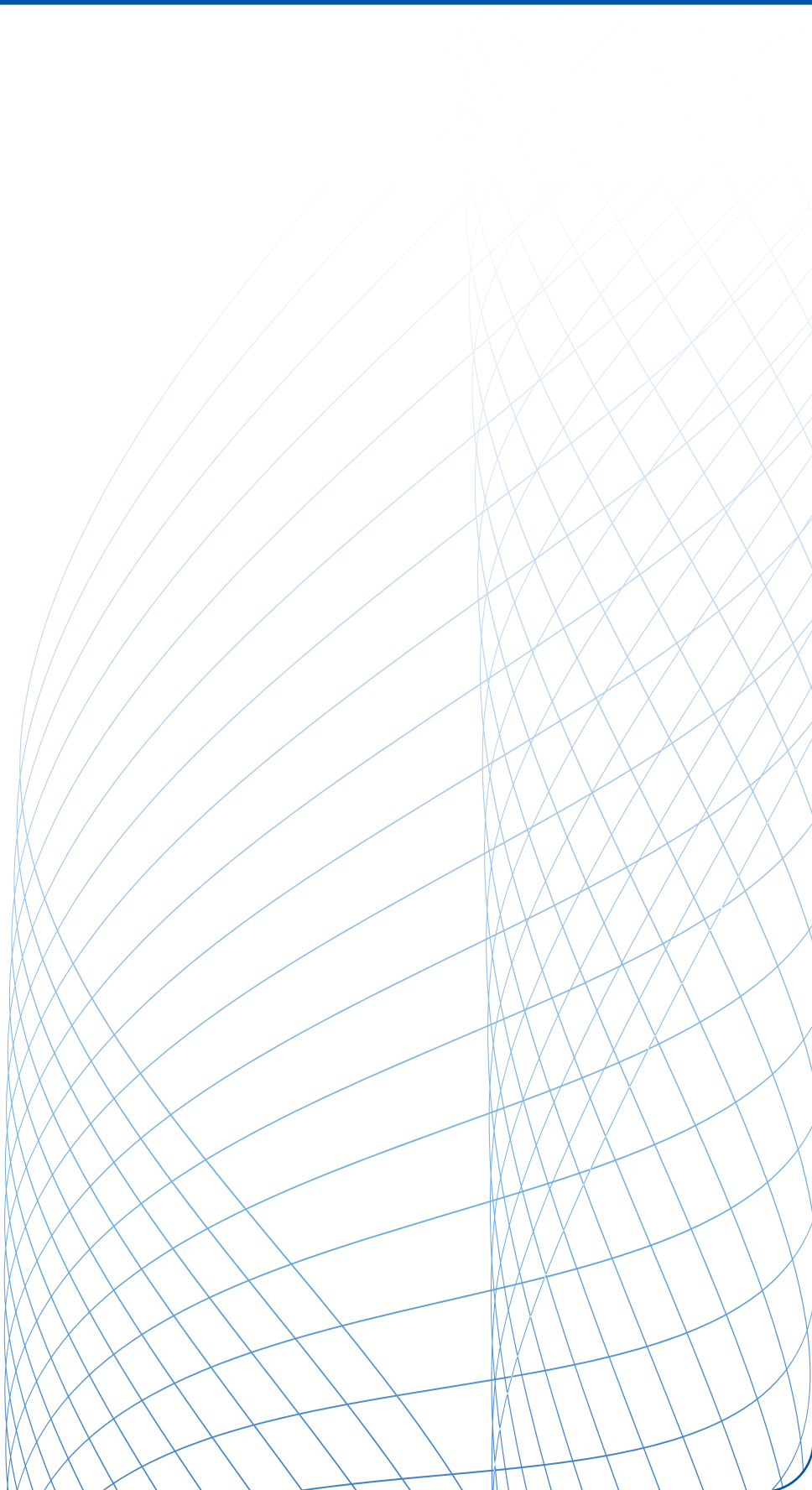
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