



Administration Headquarters



50,000m² Manufacturing Plant and Logistics Center



AIGI ENVIRONMENTAL INCORPORATED

— A Subsidiary of AIGI Industrial Group —

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J107-2020E3V1.OE



Hydraulic & Pneumatic Seals

👑 Floating & Grabbing Patent

👑 SEAL-N-C Machining Center

- Over Sized Manufacturing Ability
- High performance materials



CONTENTS

Hydraulic Seal & Pneumatic Seal Overview	01
About AI GI	03
Semi-finished Materials Summary	05
Hydraulic seals	06
Wiper Seals	06
Rod Seals	08
Piston Seals	10
Back-up Rings	14
Static Seals, Pipeline Seals	15
Solution for high pressure hydro power ($\geq 25\sim 50\text{Mpa}$)	16
Solution for low pressure hydro power ($\leq 16\sim 25\text{Mpa}$)	17
Solution for Wiper Seals (Side load)	19
Solution for Back-up Rings (High pressure & Side load)	19
Pneumatic seals	20
Wiper Seals	20
Rod Seals	20
Piston Seals	21
Back-up Rings	21
Static Seals, Pipeline Seals	21
Custom Seals	22
The Most Complete & Innovative Rotary Seal Series Available To You	23
Related AI GI Innovative Fluid Sealing Products	24

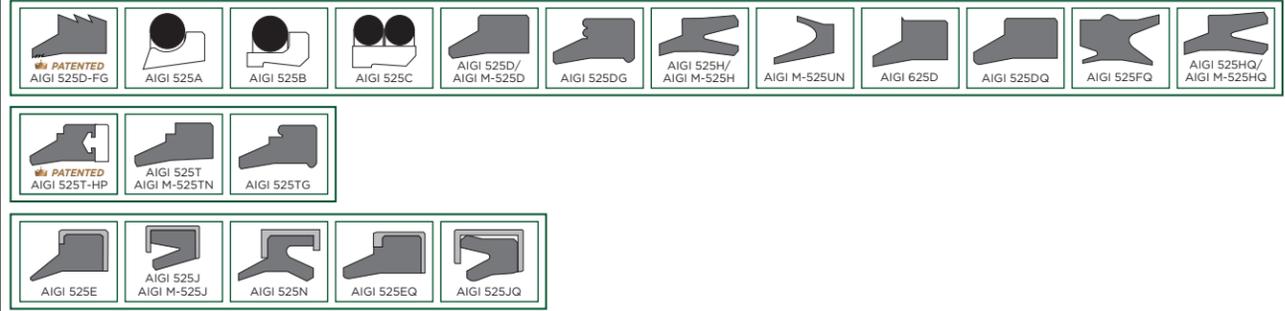
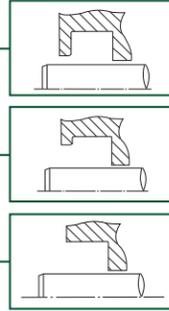
Hydraulic Seal & Pneumatic Seal Overview

 Floating & Grabbing
★ Patent ★

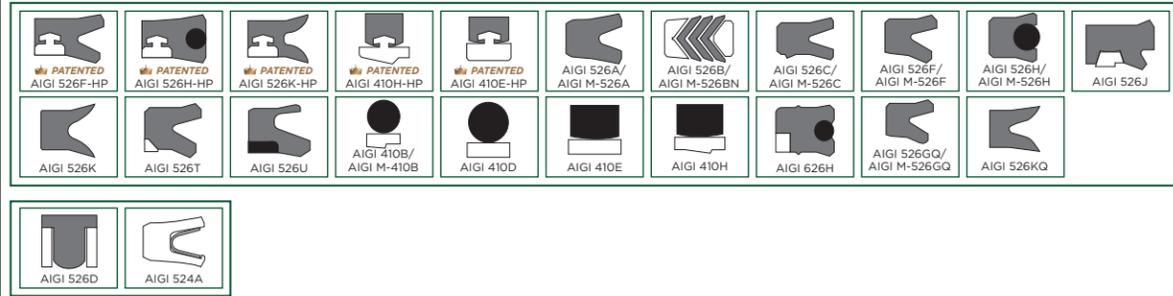
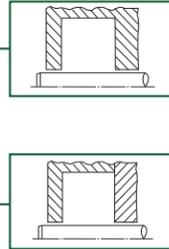
 Arrow-hook
★ Patent ★



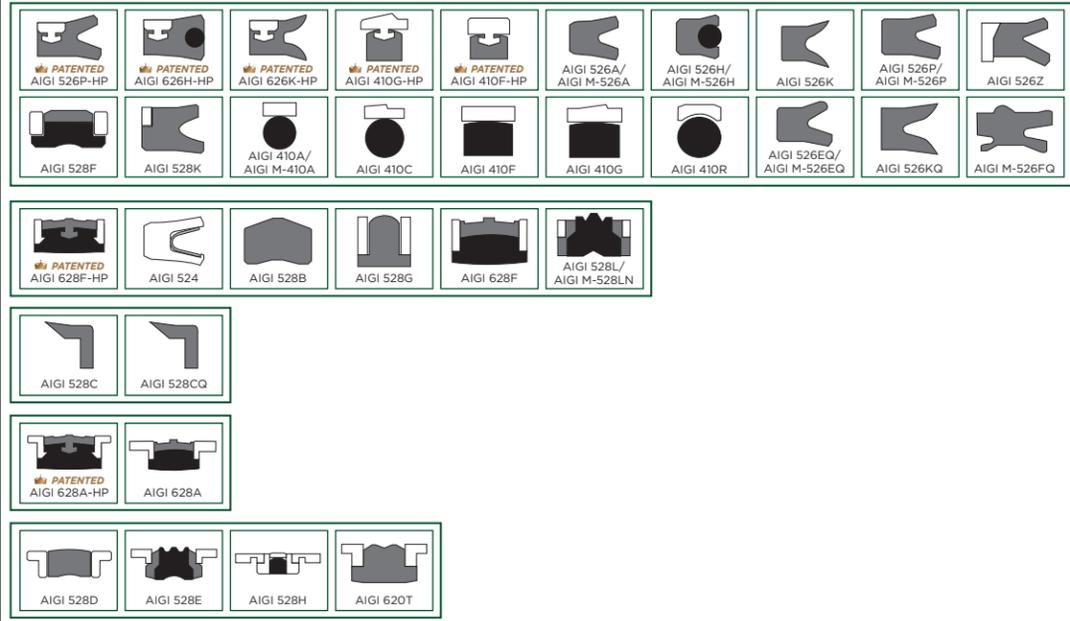
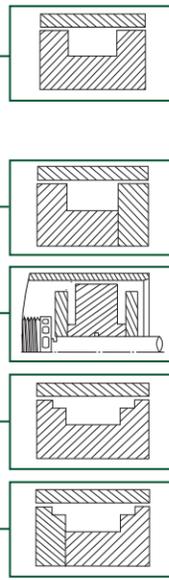
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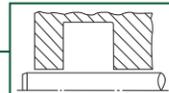
Rod Seals



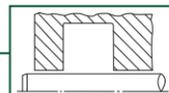
Piston Seals



Static Seals



Back-up Rings



About AIGI

AIGI machined seals including hydraulic seals, Pneumatic seals & O Rings are made from the innovative machining center - SEAL-N-C™ and high performance polymer. There are no size restrictions or minimum order requirements for those seals. Meanwhile, AIGI machined seals could reduce manufacturing and dispatch time to a minimum.

With large-scale stock and an affluent range of in-house manufacturing capabilities, AIGI is completely equipped to provide customers with all of their sealing requirements.



• **Size: up to 2,000mm (110inch)**

SEAL-N-C™ Machining Center



CE TÜV Rheinland Certified

- Machining System provides users access to practically every seal profile in the fastest time, satisfying your customer's individual requirements in standard seals along with options for special dimensions and custom made designs from any material.

Semi Finished Raw Materials



- PU
- NBR
- PTFE
- Reinforced PTFE



Rotary Seals



Hydraulic & Pneumatic Seals



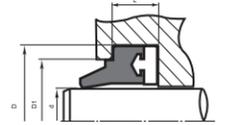
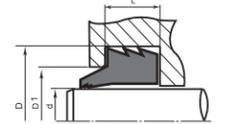
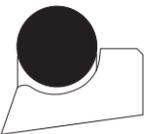
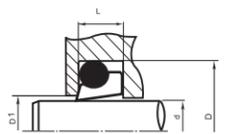
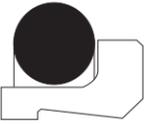
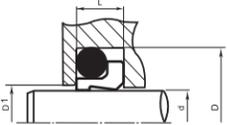
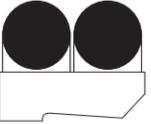
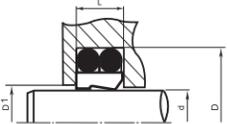
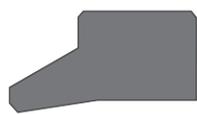
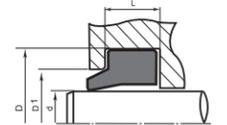
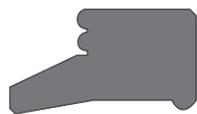
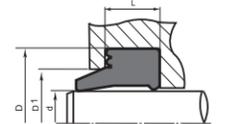
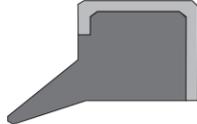
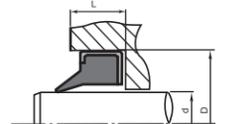
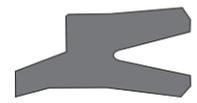
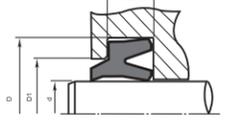
- **Version V4.0 V4.1 Standard Series:** Over 100 Profiles
- **Version V5.0 V5.1 REASON special designs:** Additional 10 profiles
- **Version V6.0 V6.1 PT series internationally patented designs:** Additional 24 profiles
- **Licensing possibility for special & patented profiles**

Semi-finished Materials Summary

Type	Code	Material	Temp. Range	Hardness	Compatibility	Properties	Usage
Elastomer	A101 / A102	Thermoset Polyurethane	-30-80°C	95 Shore A	Compatible with most hydraulic fluids except synthetics	Excellent wear and tear resistance with low compression set. Excellent extrusion resistance at high pressure.	Excellent performance in hydraulic, pneumatic and slow rotary applications.
	A104	Butadiene Acrylonitrile Rubber	-30-100°C	85 Shore A			
Fluoroplastic	A200	Virgin PTFE	-200-260°C	55 Shore D	Superior fluid compatibility	Works well in vacuum and low gas permeability applications.	Static or slow speed applications with low wear resistance.
	A201	Glass Filled PTFE	-200-260°C	60 Shore D	High PV values with excellent fluid compatibility	High wear, high pressure and high speed applications. Excellent in high viscosity fluids.	Composite seals with elastomer loading elements. Spring loaded seals, back up and guide rings.
	A205	Bronze Filled PTFE	-200-260°C	65 Shore D	Excellent fluid compatibility	Higher bearing and extrusion properties with improved wear rates. Good thermal conductivity allowing higher velocities.	Best suited for higher pressure hydraulic applications.

Hydraulic seals

• **Wiper Seals**

Code	Profile	Material	Drawing
 PATENTED AIGI 525T-HP		PU Plastic	
 PATENTED AIGI 525D-FG		PU	
AIGI 525A		Rubber Plastic	
AIGI 525B		Rubber Plastic	
AIGI 525C		Rubber Plastic	
AIGI 525D AIGI M-525D		PU	
AIGI 525DG		PU	
AIGI 525E		PU AL	
AIGI 525H AIGI M-525H		PU	

Hydraulic seals

• Wiper Seals

Code	Profile	Material	Drawing
AIGI 525J AIGI M-525J		PU AL	
AIGI 525N		PU AL	
AIGI M-525UN		PU	
AIGI 525T AIGI M-525TN		PU	
AIGI 525TG		PU	
AIGI 625D		PU	

Hydraulic seals

• Rod Seals

Code	Profile	Material	Drawing
 AIGI 526F-HP		PU Plastic	
 AIGI 526H-HP		PU Rubber Plastic	
 AIGI 526K-HP		PU Plastic	
 AIGI 410H-HP		PU Plastic	
 AIGI 410E-HP		PU Plastic	
AIGI 526A AIGI M-526A		PU	
AIGI 526B AIGI M-526BN		PU Plastic	
AIGI 526C AIGI M-526C		PU	
AIGI 526D		PU Plastic	

Hydraulic seals

• Rod Seals

Code	Profile	Material	Drawing
AIGI 526F		PU	
AIGI M-526F			
AIGI 526H		PU Rubber	
AIGI M-526H			
AIGI 526J		PU Plastic	
AIGI 526K		PU	
AIGI 526T		PU Plastic	
AIGI 526U		PU Rubber	
AIGI 524A		Plastic V type Spring	
AIGI 410B		Rubber Plastic	
AIGI M-410B			
AIGI 410D		Rubber Plastic	

Hydraulic seals

• Rod Seals

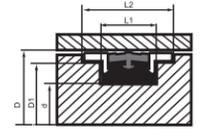
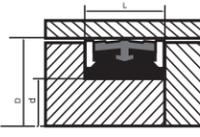
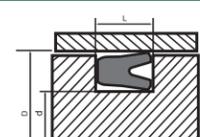
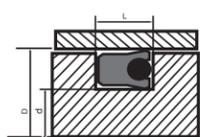
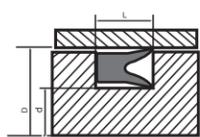
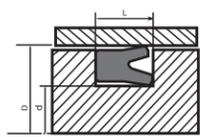
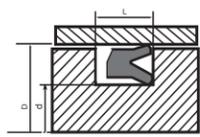
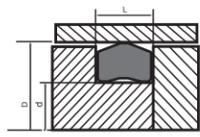
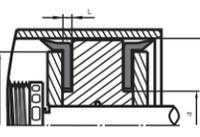
Code	Profile	Material	Drawing
AIGI 410E		Rubber Plastic	
AIGI 410H		Rubber Plastic	
AIGI 626H		PU Rubber Plastic	

• Piston Seals

Code	Profile	Material	Drawing
PATENTED AIGI 526P-HP		PU Plastic	
PATENTED AIGI 626H-HP		PU Rubber Plastic	
PATENTED AIGI 626K-HP		PU Plastic	
PATENTED AIGI 410G-HP		PU Plastic	
PATENTED AIGI 410F-HP		PU Plastic	

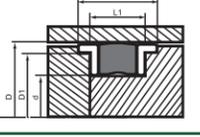
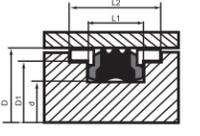
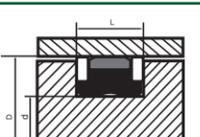
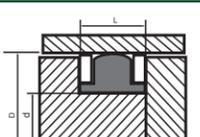
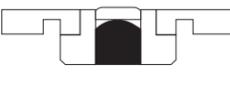
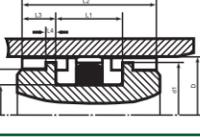
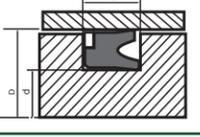
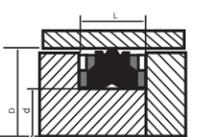
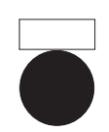
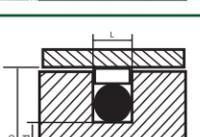
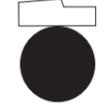
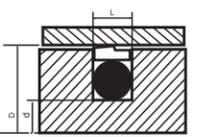
Hydraulic seals

• Piston Seals

Code	Profile	Material	Drawing
 PATENTED AIGI 628A-HP		PU Rubber Plastic	
 PATENTED AIGI 628F-HP		PU Rubber Plastic	
AIGI 526A AIGI M-526A		PU	
AIGI 526H AIGI M-526H		PU Rubber	
AIGI 526K		PU	
AIGI 526P AIGI M-526P		PU	
AIGI 526Z		PU Plastic	
AIGI 528B		PU	
AIGI 528C		PU	

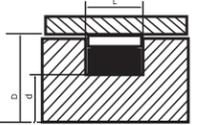
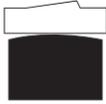
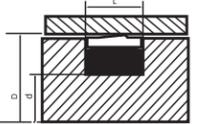
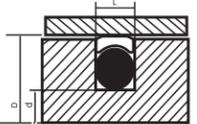
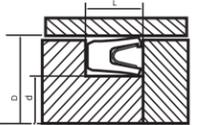
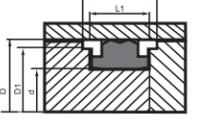
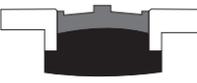
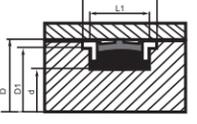
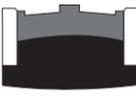
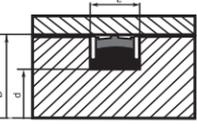
Hydraulic seals

• Piston Seals

Code	Profile	Material	Drawing
AIGI 528D		PU Plastic	
AIGI 528E		PU Rubber Plastic	
AIGI 528F		PU Rubber Plastic	
AIGI 528G		PU Plastic	
AIGI 528H		Rubber Plastic	
AIGI 528K		PU Plastic	
AIGI 528L AIGI M-528LN		PU Rubber Plastic	
AIGI 410A AIGI M-410A		Rubber Plastic	
AIGI 410C		Rubber Plastic	

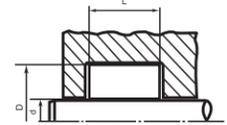
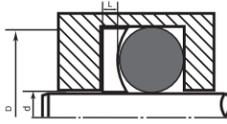
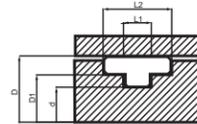
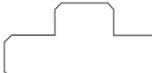
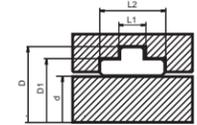
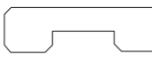
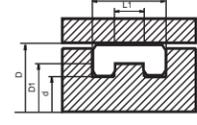
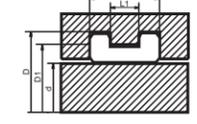
Hydraulic seals

• **Piston Seals**

Code	Profile	Material	Drawing
AIGI 410F		Rubber Plastic	
AIGI 410G		Rubber Plastic	
AIGI 410R		Rubber Plastic	
AIGI 524		Plastic V type Spring	
AIGI 620T		PU Plastic	
AIGI 628A		PU Rubber Plastic	
AIGI 628F		PU Rubber Plastic	

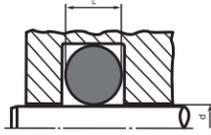
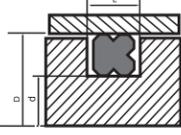
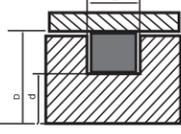
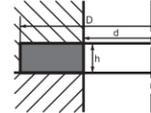
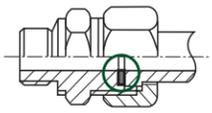
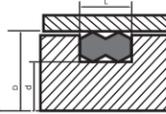
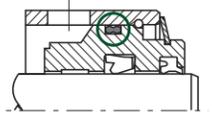
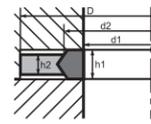
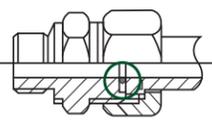
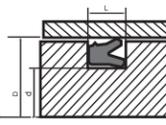
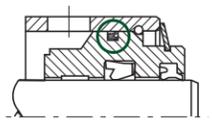
Hydraulic seals

• **Back-up Rings**

Code	Profile	Material	Drawing
AIGI 530A		Plastic	
AIGI 530C		Plastic	
AIGI 530E		Plastic	
AIGI 530F		Plastic	
AIGI 530M		Plastic	
AIGI 530W		Plastic	

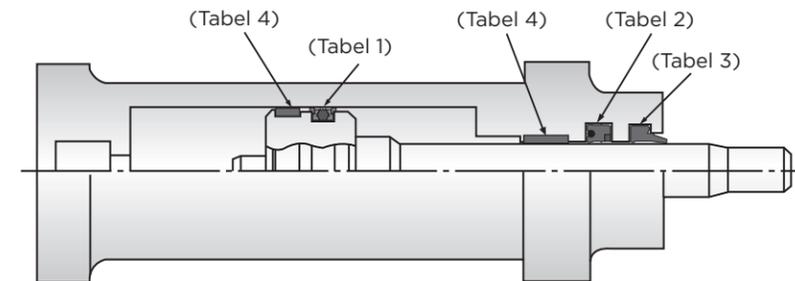
Hydraulic seals

• **Static Seals, Pipeline Seals**

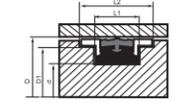
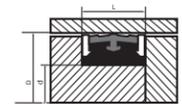
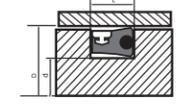
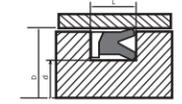
Code	Profile	Material	Drawing
AIGI 529A		PU / Rubber	
AIGI 529B		PU	
AIGI 529C		PU / Rubber	
AIGI 529D		PU	
AIGI M-529D			
AIGI 529E		PU	 
AIGI 530G		PU Metal	
AIGI M-530G			
AIGI 626P		PU	 

Hydraulic seals

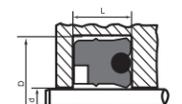
• **Solution for high pressure hydro power ($\geq 25 \sim 50\text{MPa}$)**



(Tabel 1)

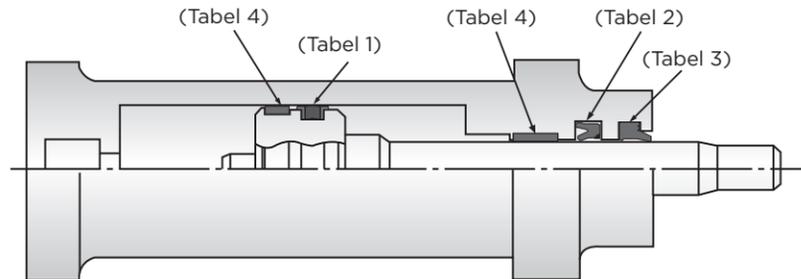
Hydraulic Seals	Pressure	Code	Application	Material
Piston Seals (Two-way)	25-50MPa	 PATENTED AIGI 628A-HP	 T-shape grooves	PU Rubber Plastic
		 PATENTED AIGI 628F-HP	 Rectangular grooves	PU Rubber Plastic
Piston Seals (One-way)	25-50MPa	 PATENTED AIGI 626H-HP	 Rectangular grooves	PU Rubber Plastic
		AIGI 526Z	 Rectangular grooves	PU Plastic

(Tabel 2)

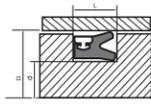
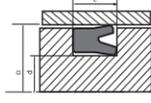
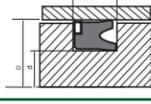
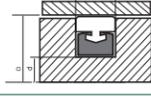
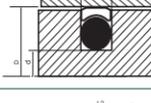
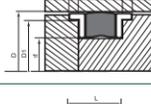
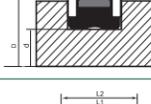
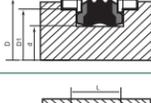
Hydraulic Seals	Pressure	Code	Application	Material
Rod Seals (One-way)	25-50MPa	AIGI 626H	 Rectangular grooves	PU Rubber Plastic

Hydraulic seals

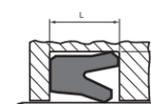
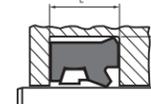
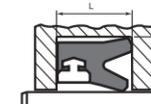
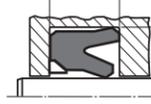
• Solution for low pressure hydro power ($\leq 16 \sim 25\text{Mpa}$)



(Tabel 1)

Hydraulic Seals	Pressure	Code	Application	Material
Piston Seals (Two-way)	< 25MPa	 PATENTED AIGI 526P-HP	 Rectangular grooves	PU Plastic
		AIGI 526P	 Rectangular grooves	PU
		AIGI 528K	 Rectangular grooves	PU Plastic
Piston Seals (One-way)	< 25MPa	 PATENTED AIGI 410F-HP	 Rectangular grooves	PU Plastic
		AIGI 410R	 Rectangular grooves	Plastic Rubber
		AIGI 528D	 T-shape grooves (split)	PU Plastic
		AIGI 526F	 Rectangular grooves	PU Rubber Plastic
		AIGI 528E	 T-shape grooves	PU Rubber Plastic
		AIGI 528L	 Rectangular grooves	PU Rubber Plastic

(Tabel 2)

Hydraulic Seals	Pressure	Code	Application	Material
Rod Seals (One-way)	< 16MPa	AIGI 526F	 Rectangular grooves	PU
	16-25MPa	AIGI 526J	 Rectangular grooves	PU Plastic
	< 25MPa	 PATENTED AIGI 526F-HP	 Rectangular grooves	PU Plastic
		AIGI 526T	 Rectangular grooves	PU Plastic
		AIGI 526B	 Rectangular grooves	PU Plastic

Hydraulic seals

• Solution for Wiper Seals (Side load)

(Tabel 3)

Code	Drawing	Material	Remarks
AIGI 525DG		PU	Max. stroke: 1M
AIGI 525TG		PU	Min. stroke: 1M
 PATENTED AIGI 525T-HP		PU Plastic	Min. stroke: 1M
 PATENTED AIGI 525D-FG		PU	Min. stroke: 1M

• Solution for Back-up Rings (High pressure & Side load)

(Tabel 4)

Cylinder Bore(mm)	Pressure & Side Load	Material	Temp.Range
≤300	Low pressure	Glass PTFE	-200-260°C
	High pressure & Side load	POM	-40-100°C
300-460	Low pressure	POM	-40-100°C
	High pressure & Side load	POM	-40-100°C
> 460	High pressure & Side load	Glass PTFE/Bronze PTFE	-200-260°C

Pneumatic seals

• Wiper Seals

Code	Profile	Material	Drawing
AIGI 525EQ		PU AL	
AIGI 525DQ		PU	
AIGI 525JQ		PU AL	
AIGI 525FQ		PU	
AIGI 525HQ		PU	
AIGI M-525HQ			

• Rod Seals

Code	Profile	Material	Drawing
AIGI 526GQ		PU	
AIGI M-526GQ			
AIGI 526KQ		PU	

Pneumatic seals

• **Piston Seals**

Code	Profile	Material	Drawing
AIGI 526EQ AIGI M-526EQ		PU	
AIGI 526KQ		PU	
AIGI M-526FQ		Rubber	
AIGI 528CQ		PU	

• **Back-up Rings**

Code	Profile	Material	Drawing
AIGI 530AQ		Plastic	

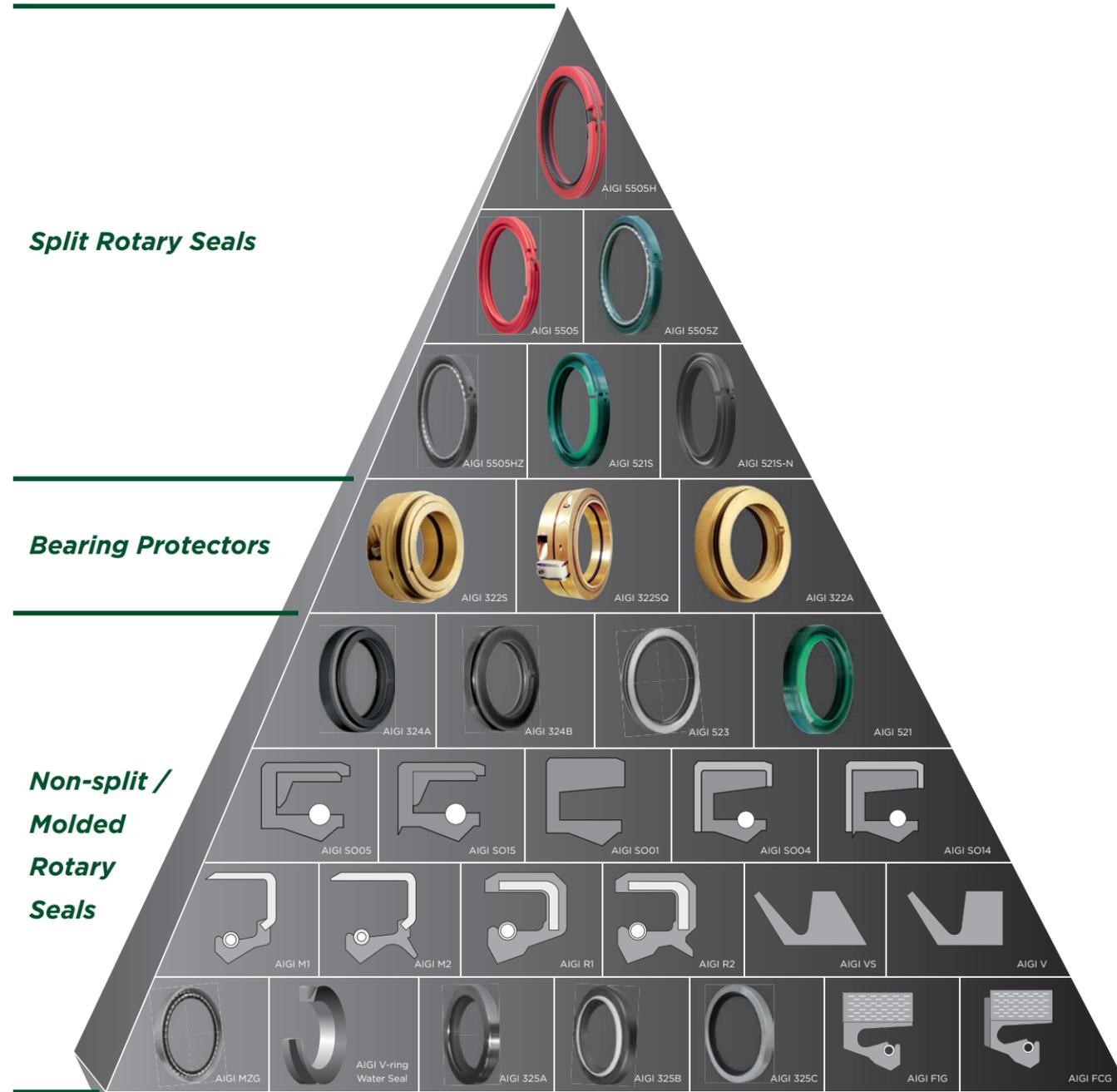
• **Static Seals, Pipeline Seals**

Code	Profile	Material	Drawing
AIGI 529AQ		PU / Rubber	

Custom Seals

 AA101A	 AA102A	 AA104PN	 AA107	 AA108	 AA110A	 AA112
 AA113	 AA114	 AA213	 AFL103	 AFL104	 AFL109	 AFL110
 AF103	 AF104	 AST110	 AST111	 AK102	 AK103	 AK104
 AK104R	 AK109	 AK122	 AK123	 AK124	 AK140	 AK141
 AK142	 AK205	 AK216	 AS102R	 AS103	 AS104	 AS104R
 AS108	 AS109	 AS116	 AS121	 AS125	 AS126/128	 AS131
 AS141	 AS142	 AS205	 AS216	 AR113	 528A	 528J
 620F	 625T	 626XP	 628D	 M-525LN	 M-525PN	 M-526NN
 526G/M-526GN	 M-528MN	 M-DKB	 M-PP	 SP47	 SP81	 SP82
 SD03	 SD04					

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