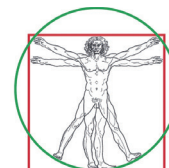




# General Catalogue

ITALIAN QUALITY MADE



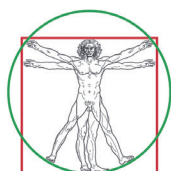
**ETTER**  
GUARNIZIONI INDUSTRIALI



Etter provides a complete set of seals for gasket in various types of materials. Next to the historical production of O -Rings and to design rubber items, there are a wide range of customized products pleased to satisfy the most varied requirements.

Real benefits, such as costs reduction, the guarantee of continuity in the supply of the products, and especially the support expert counselling and specialist consolidated, makes ETTER the real and reliable partner.

ETTER is able to activate a chain of processes complex and diversified production, which allow obtaining products that express the real essence of Made in Italy.



**ETTER**  
GUARNIZIONI INDUSTRIALI

# Strengths

## Experience

Experience and constant technical research enable it to offer excellent customized solutions. The wide knowledge of materials used in the world of seals, gaskets profiles and the basic dynamics, complete our profile.



## Expertise

For over fifteen years, thanks to constant contact with the technical departments of our customers we have increased our expertise in various industrial applications, to provide quality, reliability and competence.

## Technical assistance

From design to installation, we are engaged in research of advanced sealing solutions. By partnering with industry companies, design studios and laboratories university, we can offer the most extensive technical skills.

### *ITALIAN QUALITY MADE*

## Production flexibility

Our staff it is composed of subjective highly qualified technical able to design articles, molds and precise manufacturing processes, flexible and with maximum optimization of the time's production.

## Ratio quality/price

Years of experience and continuous modifications have enabled the optimization of the productive cycles that (thanks to the use of high quality raw materials) they have allowed us to create an excellent quality/price ratio of our products.

## Wide range of products

The availability of a wide range of products for different industries and a large stock of raw materials and standard items allow us to meet the multiple needs of our customers.

# Materials

PRODUCT	TYPE	TEMP. (°C)		SHORE		DESCRIPTION
		min	max	min	max	
<b>NITRILE RUBBER, BUNA</b>	NBR	-40	+130	30	92	Excellent resistance to oil, heat and aging. Good mechanical properties and low permanent deformation. Solid Nitrile Rubber is not resistant to weathering and ozone..
<b>FLUORINATED RUBBER, VITON</b>	FKM FPM	-20	+280	55	80	Viton is a synthetic rubber used to manufacture gaskets. Viton can withstand temperatures up to 250°C, and is a very inert but expensive rubber. Viton gaskets are typically used in extreme environments, in the presence of acids and corrosives.
<b>ETHYLENE-PROPYLENE RUBBER, DUTRAL</b>	EPDM	-90	+140	40	90	They are a synthetic rubber which offers excellent resistance to Ozone, Ageing and UV light, but is not resistant to oil or fuels
<b>SILICON RUBBER</b>	VMQ	-50	+300	30	80	Silicone rubbers resist to high temperatures, ozone, atmospheric agents and they show good dielectric characteristics.
<b>CHLOROPRENE RUBBER, NEOPRENE</b>	CR	-20	+120	40	85	Their processing characteristics and performance are able to fulfil most needs of the rubber industry. Items made of polychloroprene are highly resistant against atmospheric agents, ozone, flame.
<b>HYDROGENATED NITRILE-RUBBER</b>	HNBR	-20	+150	60	92	Excellent resistance to oils and heat. It is used when the temperatures are too high for the NBR. Good resistance to abrasion and compression set.
<b>POLYACRYLATE RUBBER, EUROPRENE AR, CYANACRYL</b>	ACM	-20	+180	45	82	Polyacrylic elastomers represent a class of polymeric materials with elevated performances in terms of: - resistance to the heat, working temperature up to 175°C (peaks up to 200°C). High lubricating oils resistance and good sealing characteristics.
<b>FLUOROSILICONE RUBBER</b>	FVMQ	-55	+200	25	85	VMQ resists to oils, flame, high and low temperatures and shows good elasticity. Fields of use: automotive, electric and electronic industries, health care and food sectors and aerospace.
<b>RUBBER PERFLUORORATA, KALREZ, SIMRIZ</b>	FFKM	-20	+315	65	95	Main features: very low permeability, fire-resistance and heat stability. Pefluoroelastomers show good chemical resistance to aliphatic and aromatic hydrocarbons, polar solvents, water, steam, organic and inorganic acids.
<b>THERMOPLASTIC POLYURETHANE, DESMOPAN</b>	TPU	-100	+180	65	82	High elasticity and excellent resistance to abrasion, excellent impact resistance both at high and at low temperature. Excellent thermoformability good weldability and resistance to weathering.
<b>POLYOXYMETHYLENE, DELRIN, ACETAL</b>	POM	-140	+135	60	85	High elasticity and excellent resistance to abrasion, excellent Both impact resistance at high and at low temperatures. excellent thermoformability good weldability and resistance to weathering.
<b>POLYTETRAFLUOROETHYLENE, TEFLON, HOSTAFLON</b>	PTFE	-200	+260	60	85	It has excellent dielectric properties, this is particularly true at high radio frequency, making it suitable as an insulator for cable and connector assemblies. Combined with its high melting temperature this material is a good choice for high performance applications.
<b>FLUORO ETHYLENE PROPYLENE, NEOFLOX</b>	FEP	-200	+205	55	100	Fluorinated thermoplastic with excellent thermal, Excellent electrical and chemical inertness. used in for its corrosion resistance fi no to temperatures of 200 ° C.
<b>POLYURETHANE, ADIPRENE, VULKOLLAN, UREPAN</b>	AU	-30	+100	60	100	Polyurethane elastomers are special rubbers whose performance and characteristics of processability have been designed to satisfy particular technical.
<b>BUTADIENE RUBBER, STYRENE</b>	SBR	-40	+100	42	92	SBR resists to shear, tear, permanent deformation and usury. while it shows. It has good dielectric properties and good chemical resistance to silicone oils, cold, water, brake fluids while it shows bad resistance to UV rays, ozone, oxygen and oxidant agents.
<b>LIQUID SILICONE RUBBER</b>	VMQL	-60	+250	20	80	Thanks to its properties VMQL is widely used in food and health care industries.

# Static seals

PRODUCT		DESCRIPTION	TYPE	MATERIALS (various Shore hardness)	DIMENSIONS	REMARKS
	O-Ring		OR-10	NBR, FKM, EPDM, VMQ, HNBR, FFKM, FVMQ, FEPM, ACM, CR, SBR, CSM, ECO, BR, IIR, IR, AU, EU, NR	DIN 3771-1, ISO 3601-1, SMS 1586, JIS B 2401, AS 568, BS 1806, BS 4518, NF T47-501, R 0 to R 88	
	O-Ring	FEP- encapsulated	OR-11	FKM / FEP encapsulated VMQ/ FEP encapsulated		
	O-Ring	PTFE- encapsulated	OR-12	PTFE Elastomer core		
	O-Ring made from O-Ring cord	glued	OR-13	NBR, FKM, EPDM, VMQ		
	O-Ring made from O-Ring cord	vulcanised	OR-14	NBR, FKM, EPDM, VMQ		
	X-Ring		XR-10	NBR, FKM, ...	AS 568	
	Back up ring	concave	BR-10	NBR, FKM, ...		
	Back up ring	solid	BR-11	PTFE, POM, PEEK, NBR, FKM, AU, ...		
	Back up ring	split	BR-12	PTFE, POM, PEEK, NBR, FKM, AU, ...		
	Back up ring	spiral	BR-13	PTFE		
	Flat ring / washer	moulded	WR-10	NBR, FKM, EPDM, VMQ ...		
	Flat ring / washer	tube cut	WR-11	NBR, FKM, EPDM, VMQ ...		
	Flat ring / washer	stamped	WR-12	NBR, FKM, EPDM, VMQ ...		
	Flat ring / washer	lathe cut	WR-13	NBR, FKM, EPDM, VMQ ...		
	D-Ring		WR-14	NBR, FKM, EPDM, VMQ ...		
	Profile seal	acc. to DIN 3869	WR-15	NBR, FKM ...	DIN 3869	
	Square ring		SR-10	NBR, FKM, EPDM, VMQ ...		
	Hygienic seal	standard design	HS-10	NBR, FKM, EPDM, VMQ, HNBR, PTFE ...	DIN 11851	FDA 177.2600
	Hygienic seal	high version	HS-11	NBR, FKM, EPDM, VMQ, HNBR, PTFE ...		FDA 177.2600
	Hygienic seal	with flange	HS-12	NBR, FKM, EPDM, VMQ, HNBR, PTFE ...		FDA 177.2600

# Static seals

PRODUCT	DESCRIPTION	TYPE	MATERIALS (various Shore hardness)	DIMENSIONS	REMARKS
	O-Ring cord	extruded	EP-10	NBR, FKM, EPDM, VMQ ...	
	Profile cord	extruded - profile acc. to drawing	EP-13	NBR, FKM, EPDM, VMQ ...	
	Bonded seal	standard design	BS-10	NBR, FKM ...	
	Bonded seal	self centring	BS-11	NBR, FKM ...	
	Bonded seal	outside sealing	BS-13	NBR, FKM ...	
	Bonded seal	design acc. to drawing	BS-12	NBR, FKM ...	
	Flange seal	outside sealing	FS-10	PTFE compounds V-spring stainless steel	
	Flange seal	inside sealing	FS-11	PTFE compounds V-spring stainless steel	
	Flange seal	outside sealing	FS-12	PTFE compound helical spring stainless steel	
	Flange seal	inside sealing	FS-13	PTFE compound helical spring stainless steel	
	Moulded part acc. to drawing	customer specific	CP-10	all established materials and combinations	
	X-Ring Service box		SK-40	NBR, FKM, EPDM, VMQ, ...	
	Service box	special contents	SK-50	NBR, FKM, EPDM, VMQ, ...	

## Kit

This O-Ring kit is a must have around for seemingly endless supply of O-Rings. Ideal for hobby, plumbing or machine shop work where variety of O-Rings are needed, but not in bulk quantity. The O-Rings are made of 70 durometer Nitrile material suitable for most sealing applications. The kit contains 382 O-Rings in 30 popular sizes.



### COMPOUND AVAILABLE

NBR 70 sh and 90 sh, FKM 80 sh, Silicone 70 sh, EPDM 70 sh and CR 70 sh.

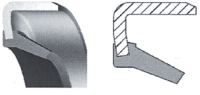









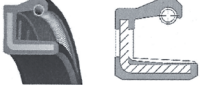



### DIMENSION AVAILABLE

IN 3771-1, ISO 3601-1, SMS 1586, JIS B 2401, AS 568, BS 1806, BS 4518, NF T47-501, R 0 to R 27, R 28 to R 88

# Rotary seals

PRODUCT	TYPE	MATERIALS	TEMP. (°C)		SPEED (m/s)		PRESSURE (MPa)	RANGE (mm)		REMARKS
			min	max	max	max	from	to		
 	Oil seal	OS-A10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	standard design acc. to DIN 3760
 	Oil seal	OS-A11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	standard design acc. to DIN 3760 with protective lip
 	Oil seal	OS-A12	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	3		without spring
 	Oil seal	OS-A13	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	4		without spring with protective lip
 	Oil seal	OS-F10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-30 -40	200 100	35 12	0.05 0.05	4	1000	case fully covered spring 1.4301 standard design for FKM material
 	Oil seal	OS-F11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-30 -40	200 100	35 12	0.05 0.05	4	1000	case fully covered spring 1.4301 stand. design with protective lip for FKM material
 	Oil seal	OS-N21	NBR FKM	-40 -30	100 170	12 35	1 1	8	300	pressure resistant with protective lip standard design
 	Oil seal	OS-N34	NBR FKM	-40 -30	100 170	12 35	1 1	8	300	pressure resistant
 	Oil seal	OS-G10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	ribbed rubber OD
 	Oil seal	OS-G11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	ribbed rubber OD with protective lip
 	Oil seal	OS-G12	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	3		ribbed rubber OD without spring
 	Oil seal	OS-G13	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	4		ribbed rubber OD without spring with protective lip
 	Oil seal	OS-B10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	6	1000	standard design metal housing
 	Oil seal	OS-B11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	6	1000	metal housing with protective lip

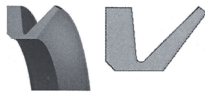
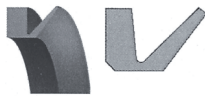
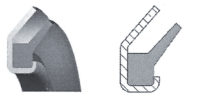
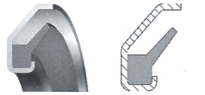
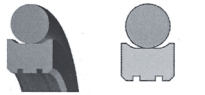
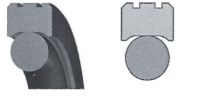

# Rotary seals

PRODUCT	TYPE	MATERIALS	TEMP. (°c)		SPEED (m/s)		PRESSURE (MPa)	RANGE (mm)		REMARKS
			min	max	max	max	from	to		
	Oil seal	OS-B12	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	4		metal housing without spring
	Oil seal	OS-B13	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	4		metal housing without spring with protective lip
	Oil seal	OS-BG10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	metal + rubber OD
	Oil seal	OS-BG11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	4	1000	metal + rubber OD with protective lip
	Oil seal	OS-C10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	6	1000	standard design metal housing + reinforcement cap
	Oil seal	OS-C11	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	12 35	0.05 0.05	6	1000	standard design metal housing + reinforcement cap with protective lip
	Oil seal	OS-C12	NBR FKM VMQ, ACM, EPDM, HNBR, ..	-40 -30	100 200	6 10	0 0	6		metal housing + reinforcement cap without spring
	Oil seal	OS-C13	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0	6		metal housing + reinforcement cap without spring with protective lip
	Oil seal	OS-D10	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0 0		1000	two sealing lips for separating two media
	Oil seal	OS-D15	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	6 10	0.03 0.03		1000	two sealing lips for separating two media
	Oil seal	OS-018	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	100 200	10 10	0.05 0.05		1000	outside sealing
	Oil seal	OS-ST18	NBR FKM VMQ, ACM, EPDM, HNBR, ...	-40 -30	80 100	7 9	0.05 0.05		300	cassette seal other designs available
	Oil seal	OS-PA30	PTFE compounds stainless steel	-90	250	40	0.5	20	1200	clamped sealing lip pressure resistant non-mould production
	Oil seal	OS-PA31	PTFE compounds stainless steel	-90	250	40	1	31	1200	clamped sealing lip pressure resistant non-mould production





# Rotary seals

PRODUCT		TYPE	MATERIALS	TEMP. (°C)		SPEED (m/s) max	PRESSURE (MPa) max	RANGE (mm)		REMARKS	
				min	max			from	to		
		Oil seal	OS-PA32	PTFE compounds stainless steel	-90	250	40	2.5	31	1200	clamped sealing lip pressure resistant non-mould production
		Oil seal	OS-W10	NBR FKM Case: stainless steel	-40 -30	100 200	12 15	0.5 1		1200	clamped sealing lip pressure resistant non-mould production
		Oil seal	OS-W11	NBR FKM Case: stainless steel	-40 -30	100 200	12 15	0.5 1		1200	clamped sealing lip pressure resistant non-mould production
		Oil seal	OS-W50	PTFE carbon / graphite Oring: FKM Spring: 1.4571	-20	200	15	1		300	chemical resistant pressure resistant non-mould production
		Oil seal	OS-Q10	NBR + NBR-Fabric FKM + FKM-Fabric	-30 -20	100 180	20 25	0.05 0.05		1200	OD made of rubber fabric for large-scale machines split versione possible
		Oil seal	OS-Q11	NBR + NBR-Fabric FKM + FKM-Fabric	-30 -20	100 180	20 25	0.05 0.05		1200	OD made of rubber fabric for large-scale machines split versione possible
		Oil seal	OS-Q12	NBR + NBR-Fabric FKM + FKM-Fabric	-30 -20	100 180	20 25	0.05 0.05		1200	OD made of rubber fabric for large-scale machines split versione possible
		Oil seal	OS-Q13	NBR + NBR-Fabric FKM + FKM-Fabric	-30 -20	100 180	20 25	0.05 0.05		1200	OD made of rubber fabric for large-scale machines split versione possible
		Cover seal	CS-10	NBR FKM	-30 -20	100		0.05 0.05			
		Cover seal	CS-11	NBR FKM	-30 -20	100		0.05 0.05			
		Cover seal	CS-12	NBR FKM	-30 -20	100		0.05 0.05			
		V-Ring	VR-A10	NBR FKM ...	-40 -20	100	8 (12) 6.5 (10)	0 0	3	1000	Type A
		V-Ring	VR-S10	NBR FKM ...	-40 -20	100	8 (12) 6.5 (10)	0 0	5	199	Tpe S
		V-Ring	VR-E10	NBR FKM ...	-40 -20	100	8 (12) 6.5 (10)	0 0	300	2000	Type E

# Rotary seals

PRODUCT	TYPE	MATERIALS	TEMP. (°c)		SPEED (m/s)	PRESSURE (MPa)	RANGE (mm)		REMARKS	
			min	max			from	to		
	V-Ring	VR-L10	NBR	-40	100	8 (12)	0	110	600	Type L
			FKM	-20	200	6.5 (10)	0			
			...							
	V-Ring	VR-AX10	NBR	-40	100	8 (12)	0	200	2000	Type AX
			FKM	-20	200	6.5 (10)	0			
			...							
	Axial seal	AS-10	NBR	-40	100	12 (20)	0	10	135	standard design
			FKM	-30	180	12 (20)	0			
			...							
	Axial seal	AS-11	NBR	-40	100	12 (20)	0	15	100	version with extented metal case
			FKM	-30	180	12 (20)	0			
			...							
	Radial seal	RD-10	PTFE carbon/graphite			5	30		2500	for rotating and oscillating movements inside sealing
			Oring: NBR	-30	100					
			Oring: FKM	-15	200					
	Radial seal	RD-11	PTFE carbon/graphite			5	30		2500	for rotating and oscillating movements outside sealing
			Oring: NBR	-30	100					
			Oring: FKM	-15	200					
	Radial seal	RD-14	PTFE carbon/graphite	-100	200	2	15		2500	with clamp flange high thermal and chemical resistance
			V-spring: 1.4310							

# Guiding elements

PRODUCT	TYPE	MATERIALS	TEMP. (°c)		SPEED (m/s)	PRESSURE (MPa)	RANGE (mm)		REMARKS
			min	max			from	to	
	Giude ring	GR-P10	PTFE bronze	-60	200	15	15		piston guide ring
			laminated fabric	-50	130	1	350		
			POM-glass	-30	110	1	35		
	Giude ring	GR-R10	PTFE bronze	-60	200	15	15		rod giude ring
			laminated fabric	-50	130	1	350		
			POM-glass	-30	110	1	35		
	Giude ring per roll	GS-10	PTFE bronze	-60	200	15	15		special surface structure chamfered edges
	Giude stripe precut	GS-11	PTFE bronze	-60	200	15	15		Precut shapes: diagonal (30°) straight (90°) Z-cut

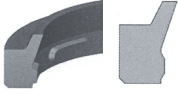
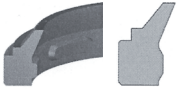

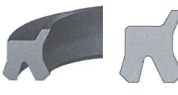
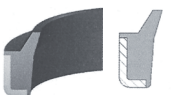

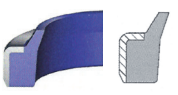

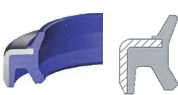
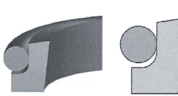
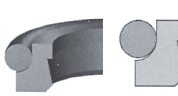
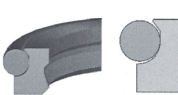

# Hydraulic seals

PRODUCT	TYPE	MATERIALS	TEMP. (°C)		SPEED (m/s)	PRESSURE (MPa)	RANGE (mm)	REMARKS
			min	max	max	max	from to	
	Piston seal	PTFE bronze + OR NBR PTFE bronze + OR FKM TPU + OR NBR	-30	100	15	40	2500	double acting
			-15	200	15	40		
			-30	100	2			
	Piston seal	PTFE bronze + OR NBR PTFE bronze + OR FKM TPU + OR NBR	-30	100	15	40	2500	single acting
			-15	200	15	40		
			-30	100	2			
	Piston seal	PTFE bronze + OR NBR PTFE bronze + OR FKM	-30	100	2	16	2500	double acting
			-15	200	2	16		
	Piston seal	PTFE compounds + OR NBR PTFE compounds + OR FKM	-30	100	15	35	2500	double acting
			-15	200	15	35		
	Piston seal	PTFE bronze + OR NBR PTFE bronze + OR FKM	-30	100	2	40	700	double acting
			-15	200	2	40		
	Piston seal	PTFE carbon/graphite V-spring: 1.4310	-150	250	15	35	2500	single acting
	Piston seal	PTFE compounds Spring: 1.4310	-150	250	10	25/45	2500	single acting
	Piston seal	PTFE compounds Spring: 1.4310	-150	250	5	30	2500	single acting
	Piston seal	NBR / Fabric + POM FKM / Fabric	-30	100	0.5	40	1200	single acting
			-15	150	0.5	40		
	Piston seal	TPU NBR	-40	100	0.5	40	250 360	single acting
			-30	100	0.5	8		
	Piston seal	NBR + PE + POM	-30	100	0.5	40	300	double acting
	Piston seal	NBR + NBR/Fabric + POM	-30	100	0.5	40	250	double acting
	Piston seal	NBR	-30	100	0.5	1.6	300	double acting
	Piston seal	NBR	-30	100	1	1.6	400	pneumatic seal double acting
	Rod seal	PTFE bronze + OR NBR PTFE bronze + OR FKM TPU + OR NBR	-30	100	15	40	2500	double acting
			-15	200	15	40		
			-30	100	2			




# Hydraulic seals

PRODUCT	TYPE	MATERIALS	TEMP. (°c)		SPEED (m/s)	PRESSURE (MPa)	RANGE (mm)		REMARKS
			min	max	max	max	from	to	
	Rod seal	RS-11 PTFE bronze + OR NBR PTFE bronze + OR FKM TPU + OR NBR	-30	100	15	40	2500		single acting
			-15	200	15	40			
			-30	100	2				
	Rod seal	RS-12 PTFE bronze + OR NBR PTFE bronze + OR FKM	-30	100	2	16	2500		double acting
			-15	200	2	16			
	Rod seal	RS-13 PTFE compound + OR NBR PTFE compound + OR FKM	-30	100	15	40	2500		double acting
			-15	200	15	40			
			-30	100	2				
	Rod seal	RS-87 PTFE carbon/graphite V-spring: 1.4310	-150	250	15	35	2500		single acting
	Rod seal	RS-88 PTFE compounds Spring: 1.4310	-150	250	10	25	2500		single acting
	Rod seal	RS-89 PTFE compounds Spring: 1.4310	-150	250	5	30	2500		single acting
	Rod seal	RS-20 NBR / Fabric + NBR + POM FKM / Fabric + FKM + POM	-30	100	0.5	40	500		single acting
			-15	150	0.5	40			
	Rod seal	RS-72 TPU NBR	-40	100	0.5	40	250		single acting
			-30	100	0.5	16			
	Rod seal	RS-73 TPU	-40	100	0.5	40	250		single acting
	Rod seal	RS-76 TPU	-40	100	0.5	40	250		single acting
	Rod seal	RS-31 NBR + NBR/Fabric + POM	-30	100	0.5	40	250		single acting
	Rod and Piston seal	RP-70 TPU NBR	-40	100	0.5	30	250		single acting
			-30	100	0.5	16	500		
	Rod and Piston seal	RP-75 TPU	-40	100	0.5	40	250		single acting
	Rod and Piston seal	RP-30 NBR + NBR/Fabric	-30	100	0.5	20	140		single acting

# Wipers

PRODUCT	TYPE	MATERIALS	TEMP. (°C)		SPEED (m/s)	PRESSURE (MPa)	RANGE (mm)	REMARKS
			min	max	max	max	from to	
	Wiper	WS-10	NBR	-40	100	4	350	single acting
			TPU	-40	100	2	250	
	Wiper	WS-11	NBR	-40	100	4	250	single acting
			TPU	-40	100	2	180	
	Wiper	WS-D14	NBR	-40	100	1	500	double wiper
	Wiper	WS-D15	NBR	-40	100	1	300	double wiper
			TPU	-40	100	1	250	
	Wiper	WS-20	NBR	-40	100	1	300	single acting with metal case
	Wiper	WS-21	NBR	-40	100	1	300	single acting with metal case
	Wiper	WS-22	TPU	-40	100	2	250	single acting with metal case
	Wiper	WS-23	TPU	-40	100	1	250	single acting with metal case
	Wiper	WS-D24	TPU	-40	100	2	250	single acting with metal case
	Wiper	WS-30	PTFE bronze + OR NBR	-30	100	15	2500	single acting
			PTFE bronze + OR FKM	-15	200	15		
			TPU + OR NBR	-30	100	2		
	Wiper	WS-D31	PTFE bronze + OR NBR	-30	100	15	2500	double wiper
			PTFE bronze + OR FKM	-15	200	15		
			TPU + OR NBR	-30	100	2		
	Wiper	WS-D32	PTFE bronze + OR NBR	-30	100	15	2500	double wiper
			PTFE bronze + OR FKM	-15	200	15		
			TPU + OR NBR	-30	100	2		
	Wiper	WS-D33	PTFE bronze + OR NBR	-30	100	5	2500	double wiper
			PTFE bronze + OR FKM	-15	200	5		

# Dumpers

PRODUCT		TYPE	MATERIALS	HARDNESSES	RANGE (Kg)		REMARKS
					comp.	cut	
		Antivibrations cylinders	MM	NBR	Shore-A: 45/65	16/700	3/100
		Antivibrations cylinders	MF	NBR	Shore-A: 45/65	20/850	4/100
		Antivibrations cylinders	FF	NBR	Shore-A: 45/65	20/850	4/100
		Antivibrations cylinders bumpers	PM	NBR	Shore-A: 45/65	5/650	
		Antivibrations bumpers	PF	NBR	Shore-A: 45/65	5/650	
		Antivibrations bumpers	PS-10	NBR	Shore-A: 45/65	40/100	
		Antivibrations bumpers	PS-11	NBR	Shore-A: 45/65	20/30	
		Antivibrations bumpers waisted	PS-12	NBR	Shore-A: 45/65	2/30	
		Cones	PS-13	NBR	Shore-A: 45/65	30/200	
		Antivibrations bushes	SIL	NBR	Shore-A: 65		
		Impact plates	BAR	NBR	Shore-A: 65		
		Antivibrations washers	AC-10	NBR	Shore-A: 55	200/800	
		Antivibrations mounts	AC-11	NBR	Shore-A: 60	500/1600	
		Antivibrations mounts	AC-12	NBR	Shore-A: 60	650/950	

# Quality



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## Certification

The implementation of the Quality Management System in compliance with the new UNI EN ISO 2001:2015 standard required the optimization and rationalization of internal and external production processes and created a virtuous circle to deliver concrete results.

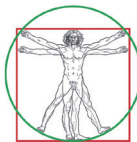
## Benefits

We have benefited from the implementation of ISO 9001 because its requirements are based on our universal principles of management:

- » Focus on customer
- » Leadership
- » Active participation of people
- » Process Approach
- » Continuous improvement
- » Decision-making process based on evidence
- » Managing relationships

## Customer satisfaction

Demonstrating our commitment to meeting the highest standards of quality and customer satisfaction in order to provide a higher quality assurance on supply and consequently lower cost of controls, all focused on customer satisfaction.



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