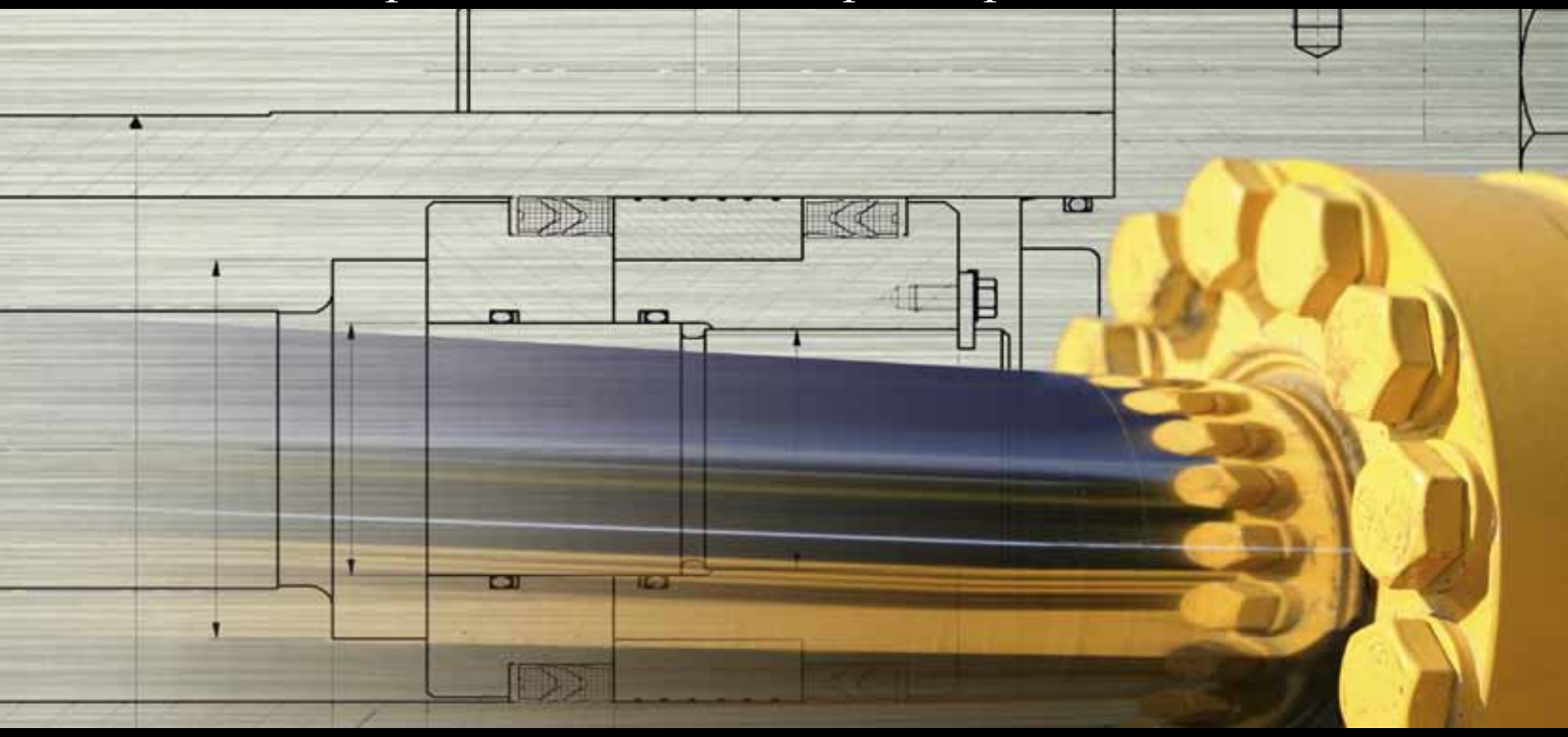
Прокладки & уплотнительные решения
Тяжелая Промышленность

Гидравлические цилиндры и вращательные движения



Тяжелая промышленность

Наиболее важные инженерные компании в Италии играли в течение многих лет ведущую роль в защите и заводы для так называемого первичного сектора промышленности.

В частности, с этим термином, мы имеем в виду тяжелой промышленности, состоящий в преобразовании и переработке природных ресурсов, таких как сталь, минералов, цемента и бумаги в первичные продукты.
Эти факторы способствовали распространению итальянской технологии во всем мире, а также позволили расширение и развитие многих стран.

Компания Центр Уплотнений сотрудничает на протяжении многих лет с самыми важными компаниями, участвующими в проекте и реализации этих растений.

Безопасность и надежность являются основными характеристиками уплотнительных систем, используемых в гидравлических устройствах и роторных систем.

Компания Центр Уплотнений, благодаря опыту, собранной в течение многих лет, может предложить полный спектр уплотнений, используемых для следующих применений:

Металлургическая промышленность

• Горячие и холодные прокатные станы
• Непрерывная разливка стали мельницы
• Заводы и прессы для стали ковкой
• Заводы и прессы для экструдирования металлов
• Устройства взаимной блокировки масляные-динамические
• Гидравлические приводы
• Грузоперевозки
•Тепловые очистные сооружения

Цементные мельницы

• Гидравлические установки для добычи и дробления сырья
• Гидравлические установки и вращательные системы, используемые для переработки клинкера и выпекания
• Конкретные установки и вращательные системы, такие как дробилки, мельницы, трубчатых печей и т.д. ...
• Гидравлические блокировки заводов.

Бумажная фабрика

• Установки и вращательные системы для механической обработки целлюлозы
• Гидравлические установки и вращательные системы для непрерывного прессования
• Гидравлические установки и вращательные системы для каландрирования и высушивания.

Тяжелая промышленность

Компания Центр Уплотнений производит прокладки котороые используются

используются для следующих гидравлических устройств:

- Вращающиеся гидравлические цилиндры
- Гидравлические цилиндры плунжерные
- Телескопические цилиндры
- Пускатель
- Гидравлические колпачки
- Гидравлические цилиндры для формовочных прессов
- Гидравлические цилиндры для экструзии прессов
- Гидравлические цилиндры для кузнечно-прессовых машин

И в следующих вращающихся системах:

- Ламинирование роликов
- Коробки передач
- Устройства для защиты подшипников
- Устройства для защиты кустов или направляющих полос
- Вспомогательные устройства для шлифования цилиндров и роликов
- Вспомогательные устройства для вращающихся машин.

Установки для выпекания клинкера

Бумажная фабрика

Цементные заводы

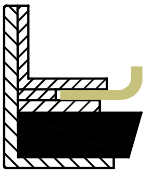
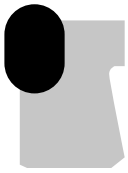
Установки для переработки целлюлозы

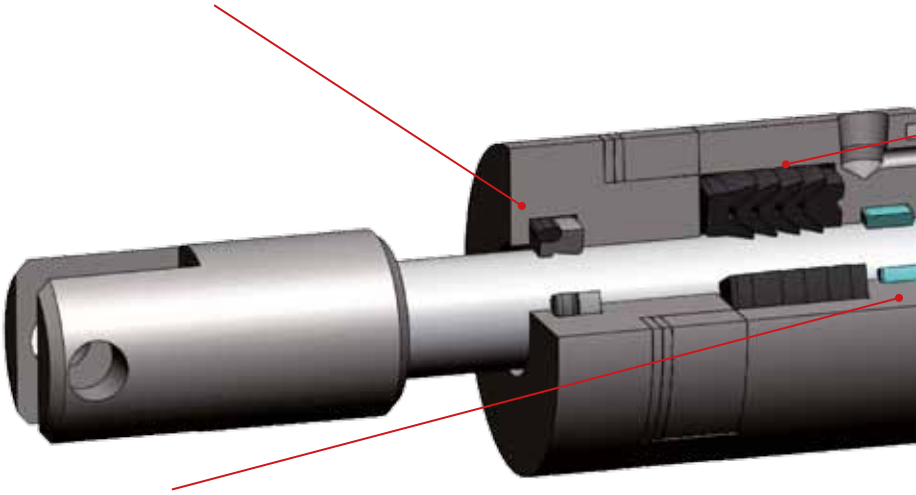
Станы горячей стали

Станы горячей прокатки

Грязесъемники

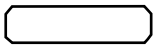
STD: Стандартные приложения - HD: Приложения для тяжелых условий работы

STD				
	G6	G7	CP9	CPPT1
HD				
	CPPT2	WM	CPWTFA	CPWTFB



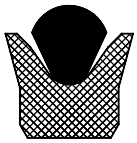
Щелевые кольца

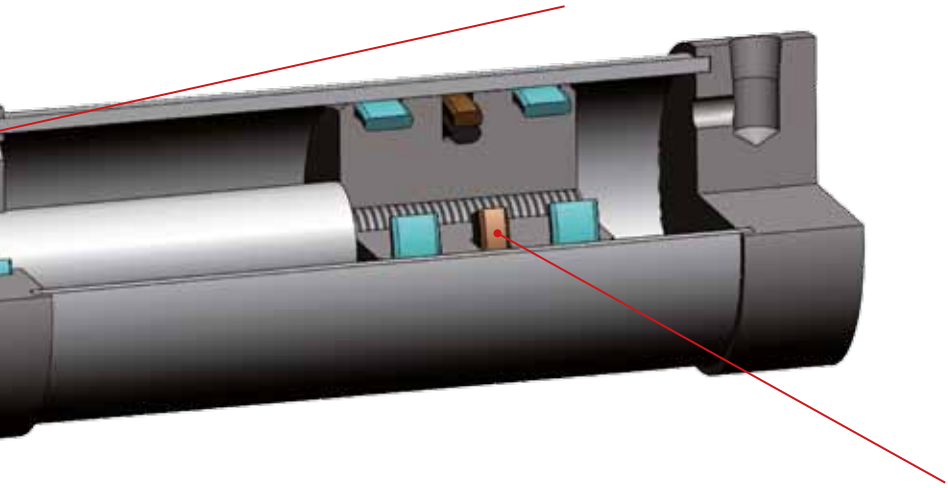
STD: Standard Applications - HD: Heavy duty Applications

STD			
	FGI6 – FGE6	FGI0 – FGE0	FGI4 – FGE4
HD			
	FGI5 - FGE5	FGI1 – FGE1	FGI7 – FGE7

УПЛОТНЕНИЕ ШТОКА

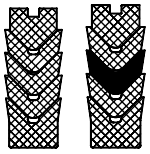
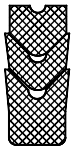
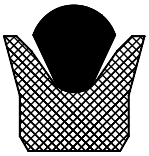
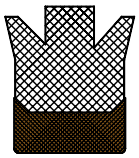
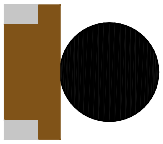
STD: Standard Applications - HD: Heavy duty Applications

STD							
	IGR/A	IGR/B	TEOL 1	TEOL 1/B	TEOL 2	TENAX TG	TENAX TO
HD							
	IGR/A/P	IGR/B/P	IGR/AW	IGR/BW	TG 40	W	BADERNA LEONE



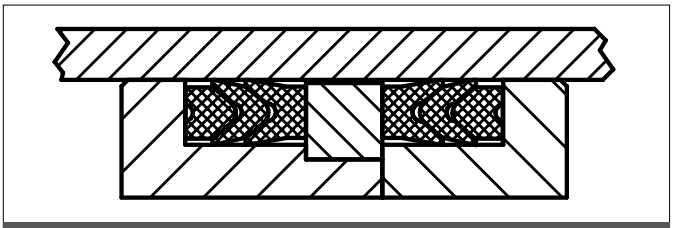
Уплотнение поршня

STD: Standard Applications - HD: Heavy duty Applications

STD					
	EGR/A	EGR/B	G26	DGB	DSM
					
	TENAX TG-TO	TG3	JWT	TEOL 2	TEOL 8
HD					
	EGR/A/P	EGR/B/P	EGR/AW	EGR/BW	W

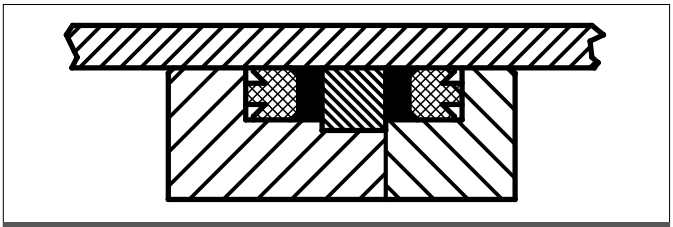
Heavy industry - Hydraulic cylinders applications

Alluminum extrusion press



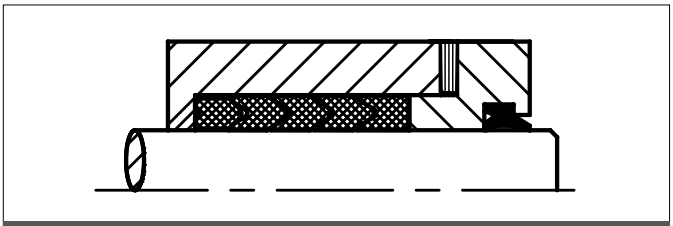
PISTON SEAL consisting of:
VEE-PACKING SET – TG3 in Tenax – Cotton fabric + NBR
Assembled back-to-back for applications on double-acting cylinders
Max p= 400bar, s=0.5m/s, t=-30°c÷120°c

Forging press



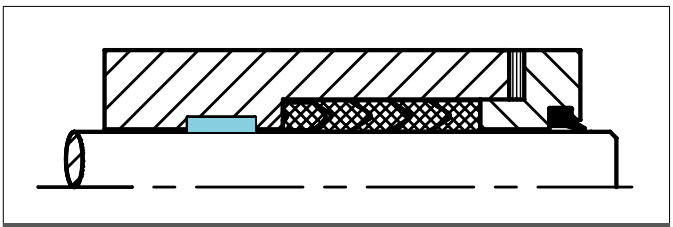
PISTON SEAL consisting of :
Gasket type TEOL8 in Tenax – Cotton fabric + NBR
Assembled back-to-back for applications on double-acting cylinders
Max p =400bar, S=0.5m/s,T=-30°C÷120°C

Hydraulic press



ROD SEAL consisting of:
W-packing set in TENAX – cotton fabric + NBR
Wiper type CP9 in NBR
Max p=600bar, S=0.5m/s, T=-30°C÷120°C

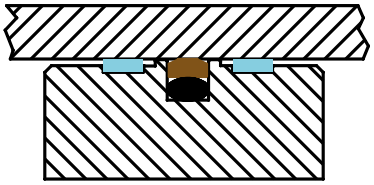
Forging press



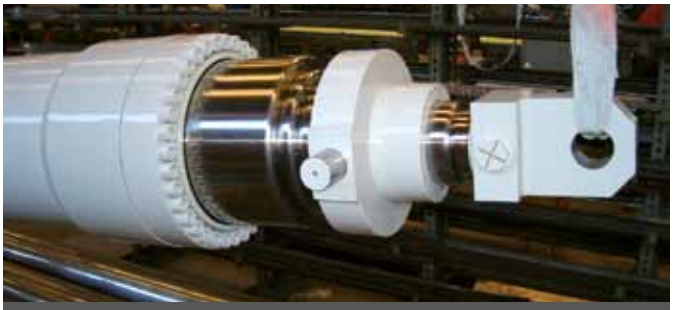
ROD SEAL consisting of:
Guide strip type FGI in C380
Vee-packing set TG 5 in TENAX – cotton fabric + NBR
Wiper type P6 in NBR
Max p=400bar, S=0.5m/s, T=-30°C÷120°C

Heavy industry - Hydraulic cylinders applications

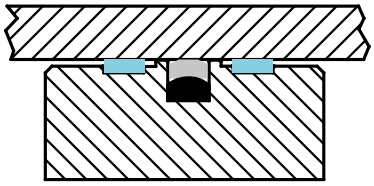
Hydraulic cylinder



Piston seal consisting of:
Guide strip type FGE7 in C380
Gasket set type EGR /A with back-up ring in PTFE + bronze and O-ring in NBR 70 Shore A
For applications on double-acting cylinders
Max p= 400bar , S= 5m/s, T =-30°C÷120°C

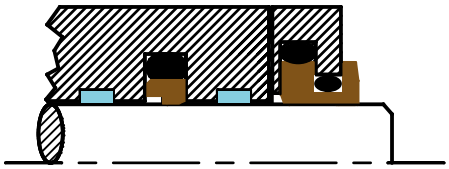


Telescopic cylinder



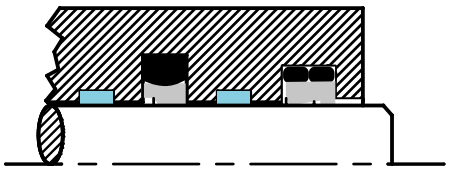
Piston seal consisting of:
Guide strip type FGE7 in C380
Gasket set type EGR/AW with back-up ring in PTFE + glass + MoS2
Energizing ring in NBR Sh80
For applications on double-acting cylinders
Max p= 300bar , S= 5m/s, T =-30°C÷120°C

Hydraulic cap



Rod seals consisting of:
Guide strip type FGI7 in C380
Primary seal with gasket set type IGR /B with back-up ring in PTFE + bronze and O-ring in NBR 70 Shore A
Wiper type CPPT 2 in PTFE +bronze and O-ring in NBR
Max p= 400bar , S= 5m/s, T =-30°C÷120°C

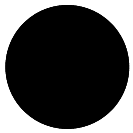
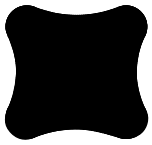
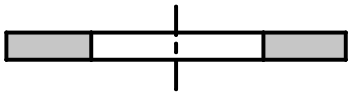
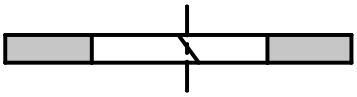
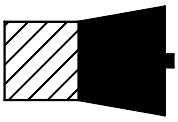
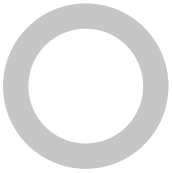
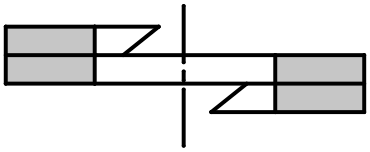
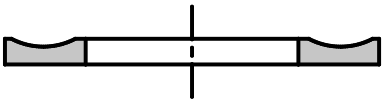
Hydraulic Cylinder



Rod seal consisting of :
Guide strip type FG I7 in C380
Primary seal with gasket set type IGR /BW with back-up ring in PTFE + glass + MoS2 and energizing ring in NBR 80 Shore A
Wiper type CPPT 1 in PTFE + glass + Mos2 and O-ring in NBR
For applications on double-acting cylinders Max p= 300bar ,
S= 5m/s, T =-30°C÷120°C

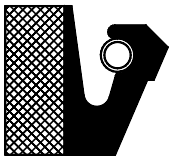
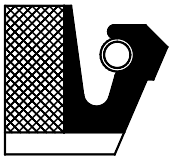
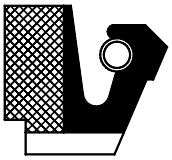
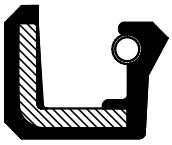
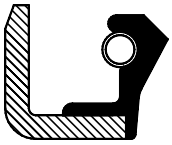
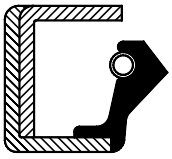
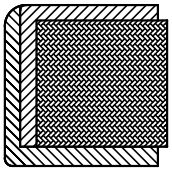
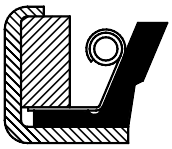
Static seals

STD: Standard Applications - HD: Heavy duty Applications

			
O-RINGS	Q-RINGS	BKS -ENDLESS	BKS - SPLIT
			
BS	DIN7603	SPIRAL BK	PK

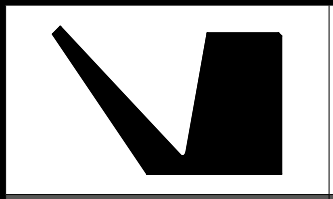
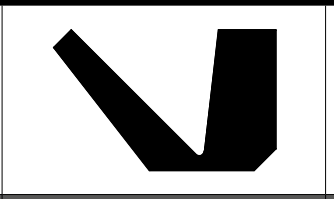
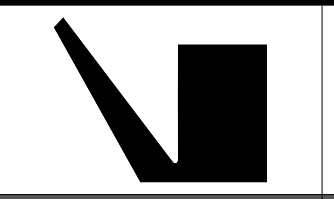
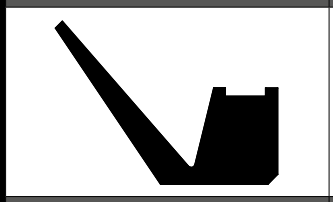
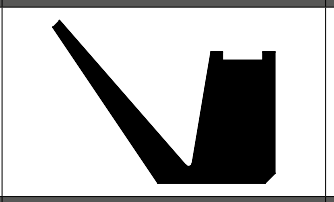
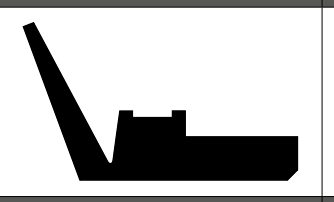
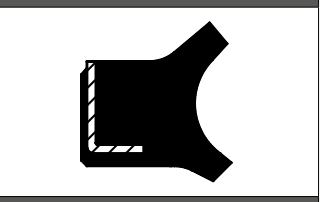
Rotary shaft seals

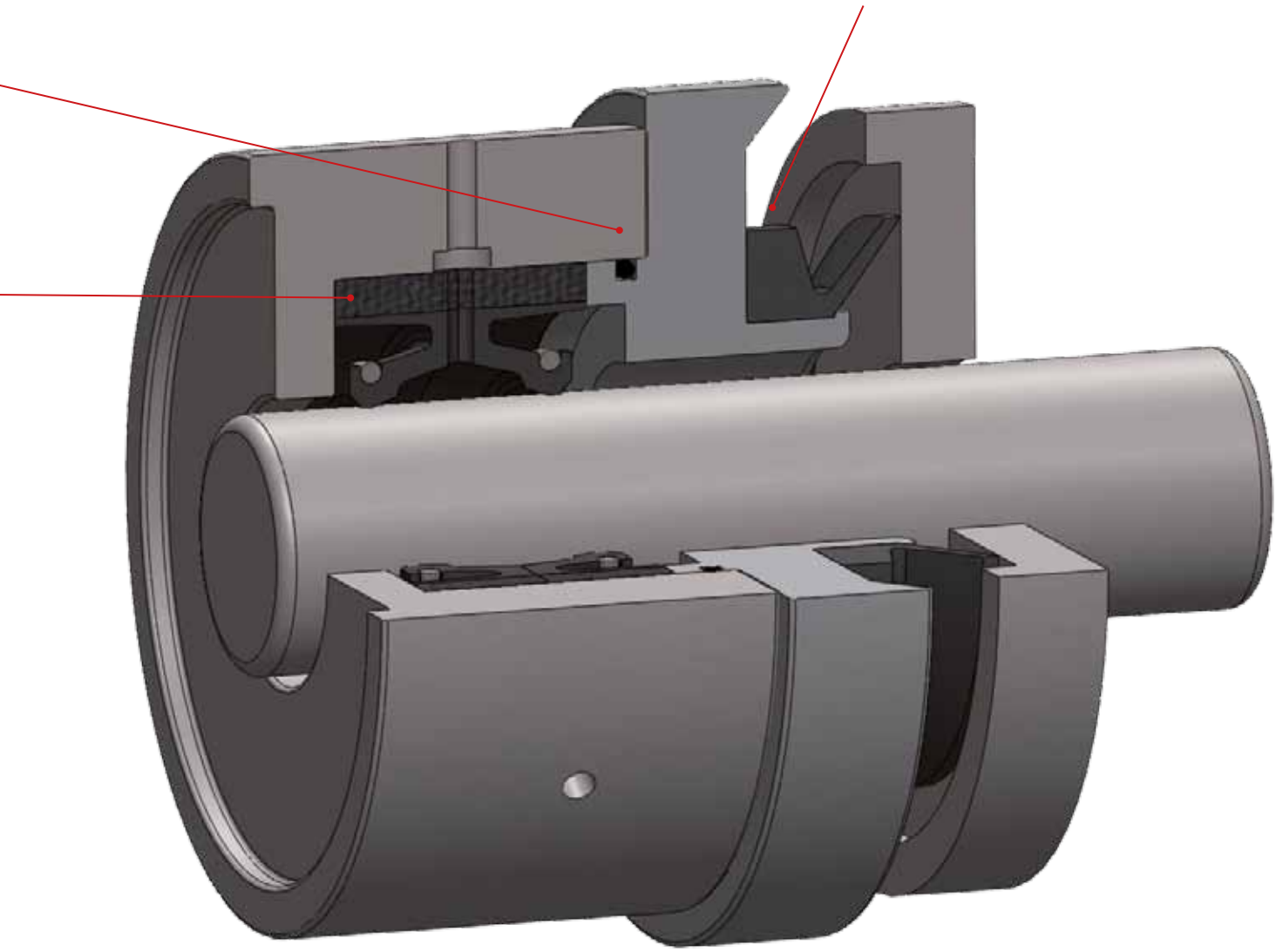
STD: Standard Applications - HD: Heavy duty Applications

STD			
	G35	G36	G37
STD			
	PR2	PR13	PR1
HD			
	RGR/E - RGR/I	B2/TR	C64D

Frontal seals

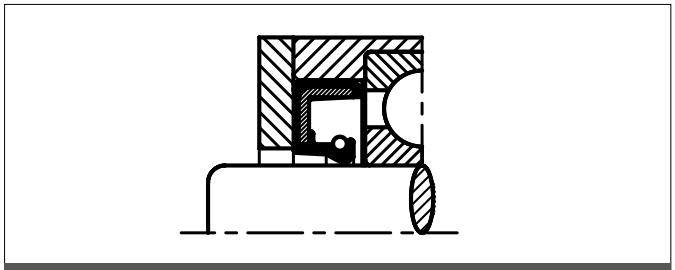
STD: Standard Applications - HD: Heavy duty Applications

STD				
	VA	VL	AX	VS
HD				
	RME	VE	RM	TF



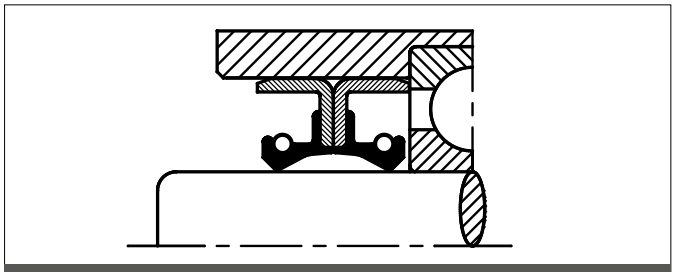
Heavy industry - Rotary systems applications

Paper mills rotary system



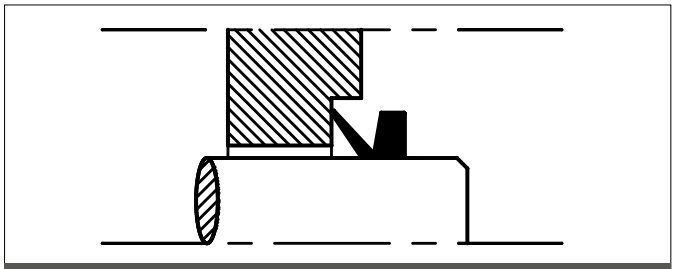
Sealing systems on rotary shaft consisting of:
Seal type PR2 in NBR + steel
Max p=0.5bar, S=20m/s, T = -30°C÷120°C

Steel mills



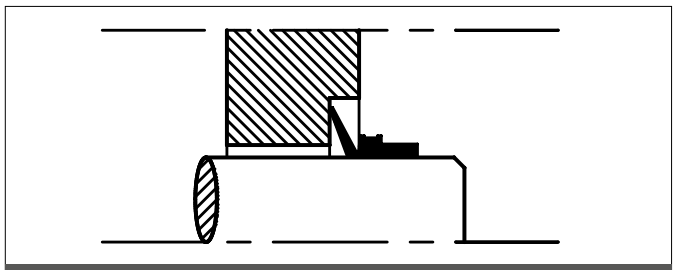
Sealing system on rotary shaft consisting of:
Two seals type PR13 in NBR + steel
Assembled back-to-back
Max p=0.5bar, S=20m/s, T = -30°C÷120°C

Speed reducers



V-ring type VA in NBR
Max S=18m/s, T = -30°C÷100°C

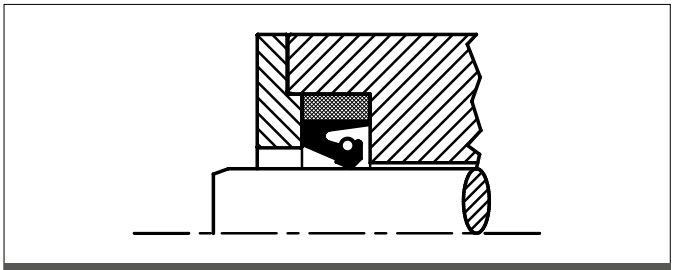
Hot rolling mills



V-ring type RM in NBR
Max S=18m/s, T = -30°C÷100°C

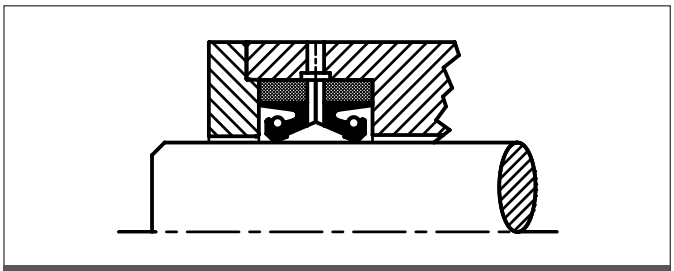
Heavy industry - Rotary systems applications

Hot rolling mill



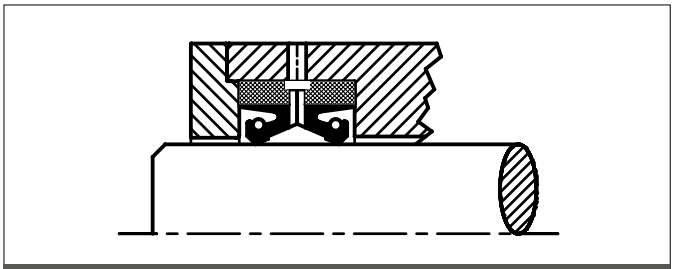
Sealing system on rotary shaft consisting of:
Seal type G35 in TENAX + NBR
Max p=0.5bar, S=20m/s, T=130°C

Cold rolling mills



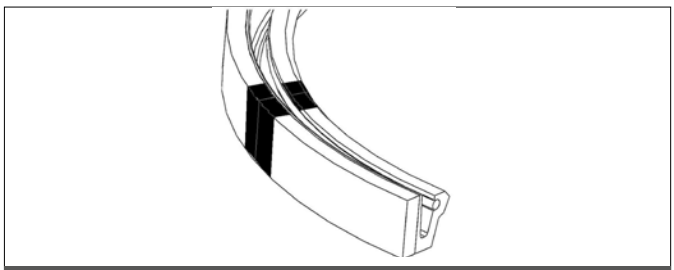
Sealing system on rotary shaft consisting of :
Seal type G36 in TENAX + NBR
Assembled back-to-back for applications
Max p=0.5bar, S=20m/s, max T=130°C

Hydraulic valves



Sealing system on rotary shaft consisting of :
Seal type G37 in TENAX + NBR
Assembled back-to-back
Max p=0.5bar, S=20m/s, max T=130°C

Rotary clinker baking system



Rotary shaft seal in split form

Hydraulic cylinders - product overview

Road seals

Item code	Profile	Dimensional range [mm]	Materials		P [bar]	S [m/s]	T [°C]	Applications
IGR/A		10 ÷ 1800	Seal ring	PTFE + bronze PTFE + carbon PTFE + graphite PTFE + glass PTFE+ glass MoS2	400 400 250 250 400	5	-30 ÷ 120 -10 ÷ 200	• steel mills • injection moulding presses • forging presses • extruding presses • hydraulic cylinders • machine tools • moving machines • valves for hydraulic and pneumatic circuits
IGR/B		10 ÷ 1800	O-ring	NBR 70 Shore A FKM 70 Shore A				
IGR/A/P		100÷ 1200	Seal ring O-ring Back-up ring	PTFE + bronze PTFE+ glass MoS2 NBR 70 Shore A FKM 70 Shore A High performance thermoplastic Material	600	5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders for special applications • heavy industry
IGR/B/P		100÷ 1000						
IGR/AW		300 ÷ 1800	Seal ring Energizing ring	PTFE + glass MoS2 PTFE+ carbon	300 400	5	-30 ÷ 120	• Hydraulic cylinders for special applications • heavy industry
IGR/BW		300 ÷ 1800		NBR 80 Shore A				
TEOL/1		20 ÷ 600	Seal ring Thrust ring Back-up ring	NBR + fabric FKM+ fabric NBR 70 Shore A FKM 70 Shore A PA6 Nylon PTFE	200	0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
	 ../A							
	 ../B							

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Road seals

Item code	Profile	Dimensional range [mm]	Materials		P [bar]	S [m/s]	T [°C]	Applications
TEOL/2		5 ÷ 1700	Seal ring Energizing ring	NBR+ fabric FKM+ fabric NBR 70 Shore A FKM 70 Shore A	200	0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
TENAX	 TO SERIES	20 ÷ 300	NBR + fabric FKM + fabric HNBR + fabric		400	0,5	-30 ÷ 120 -10 ÷ 200 -30 ÷ 150	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses
	 TG SERIES	20 ÷ 1800 endless or split	Intermediate rings in NBR 70 Shore A Intermediate rings in FKM 70 ShoreA Intermediate rings in HNBR 70Shore A				-30 ÷ 120 -10 ÷ 200 -30 ÷ 150	
	 W SERIES	200 ÷ 1800 endless or split	NBR + fabric FKM + fabric		600	0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
	 TG 40 SERIES	8 ÷ 1100	NBR + fabric FKM + fabric		300	0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
TENAX BADERNA LEONE		100 ÷ 1835	NBR + fabric		600	0,5	-30 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
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Hydraulic cylinders - product overview

Piston seals

Item code	Profile	Dimensional range [mm]	Materials		P [bar]	S [m/s]	T [°C]	Applications
EGR/A		10 ÷ 1800	Seal ring O-ring	PTFE+bronze PTFE+carbon PTFE+graphite PTFE+glass PTFE+glass MoS2 NBR 70 ShoreA FKM 70 ShoreA	400 400 250 250 400	5	-30 ÷ 120 -10 ÷ 200	• steel mills plants • injection moulding presses • forging presses • extruding presses • hydraulic cylinders • machine tools • moving machines • valves for hydraulic and pneumatic circuits
EGR/B		10 ÷ 1800						
EGR/ A/P		100 ÷ 1200	Seal ring O-ring Back-up ring	PTFE+bronze PTFE+glass MoS2 NBR 70 Shore A FKM 70 Shore A High performance thermoplastic material	600	5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders for special applications • heavy industry
EGR/ B/P		100 ÷ 1200						
EGR/ AW		300 ÷ 1800	Seal ring Energizing ring	PTFE+glass MoS2 PTFE+carbon	300 400	5		• Hydraulic cylinders for special applications • heavy industry
EGR/ BW		300 ÷ 1800		NBR 80 Shore A			-30 ÷ 120	
G26		20 ÷ 350	Seal ring Back-up ring	NBR + fabric / NBR POM	300	0,5	-30 ÷ 120	• Hydraulic cylinders for special applications • heavy industry
DSM		20 ÷ 350	Seal ring Supporting ring Back-up ring	NBR NBR+fabric POM	700	0,5	-30 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Hydraulic cylinders - product overview

Piston seals

Item code	Profile	Dimensional range [mm]	Materials		P [bar]	S [m/s]	T [°C]	Applications
DGB		20 ÷ 350	Seal ring Supporting ring Back-up ring	NBR NBR+fabric POM	350	0,5	-30 ÷ 120	• Oil dynamic plants • plunger cylinders
TENAX	 TO SERIES	20 ÷ 300	NBR + fabric FPM + fabric		400	0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses
	 TG SERIES	20÷ 1800 endless or split	Intermediate rings in NBR 70 Shore A Intermediate rings in FPM 70 Shore A				-30 ÷ 120 -10 ÷ 200	
	 W SERIES	200 ÷ 1800	NBR + fabric		600	0,5	-30 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
	 TG3 SERIES	10 ÷ 300	NBR + fabric FPM + fabric HNBR + fabric		400	0,5	-30 ÷ 120 -10 ÷ 200 -30 ÷ 150	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses
	 JWT SERIES	20 ÷ 600	U-ring Head ring	NBR + fabric Hard material nylon type	340		-30 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • hydraulic valves
TEOL/2		200 ÷ 300	Seal ring (back) Energizing ring	FPM + fabric NBR	250	0,5	-10 ÷ 200	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
TEOL/8		200 ÷ 300	NBR + fabric HD - NBR + fabric		400	0,5	-30 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Wipers

Item code	Profile	Dim. range [mm]	Materials	S [m/s]	T [°C]	Applications
G6		8 ÷ 900	NBR FKM PTFE PTFE + glass PU	2 2 5 5 0,5	-30 ÷ 120 -10 ÷ 200 -200÷260 -200÷260 -30 ÷ 105	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
G7		8 ÷ 320	NBR PU Metal part: Carbon steel	2 0,5	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
CP9		250 ÷1800	NBR FPM	1 1	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
CPPT1		25 ÷1200	PTFE + bronze PTFE + Glass + MoS2 O-ring: NBR FKM	5	-30 ÷120 -10 ÷ 00	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
CPPT2		200 ÷1200	PTFE + bronze O-ring: NBR FKM	5	-30 ÷ 120 -10 ÷200	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
WM		25 ÷400	Metal case : carbon steel First lip in brass Second lip in FKM	1	- 10 ÷120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
CPWTFA		10 ÷500	PTFE + bronze PTFE + Glass + MoS2 O-ring: NBR FKM	5	-30 ÷120 -10 ÷200	• steel mills plant • injection moulding presses • forging presses • extruding presses • hydraulic cylinders • machine tools • moving machines
CPWTFB		10 ÷1200	PTFE + bronze PTFE + Glass + MoS2 O-ring: NBR FKM	5	-30 ÷120 -10 ÷200	• steel mills plant • injection moulding presses • forging presses • extruding presses • hydraulic cylinders • machine tools • moving machines
LINEAR WIPERS		Supplied in strips	NBR Metal		-30 ÷ 120	• Machine tools

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Wear rings

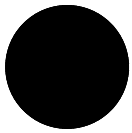
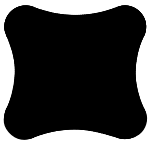
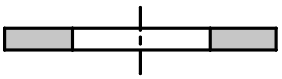
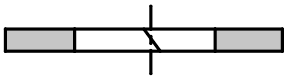
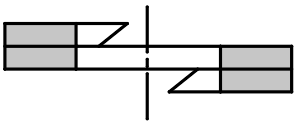
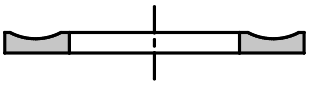
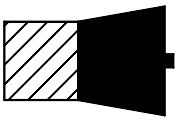
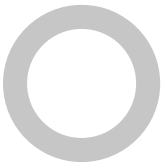
Item code	Profile	Dim. range [mm]	Materials	Metal contact	Applications
FGI5 FGE5		Tapes up to 700 mm	Phenolic resin + cotton	• Steel • Steel, hardchromed • Cast iron • Stainless steel	• Mobile hydraulics • Standard cylinders • Presses
FGI1 FGE1		Tapes up to 700 mm	PTFE + bronze	• Steel • Steel, hardchromed • Cast iron	• Mobile hydraulics • Standard cylinders • Machine tools • Injection moulding presses
FGI7 FGE7		Max 1500 mm	C380	• Steel • Steel, hardchromed • Cast iron • Stainless steel	• Mobile hydraulics • Standard cylinders • Water hydraulics • Shipping and marine engineering • Presses
FGI4 FGE4		Tape up to 700 mm	PTFE + carbon	• Mild steel • Stainless steel • Aluminium, Bronze	• Mobile hydraulics • Standard cylinders • Machine tools • Injection moulding presses
FGI6 FGE6		15÷300	POM + glass	• Steel • Steel, hardchromed • Cast iron	• Mobile hydraulics • Standard cylinders
FGI0 FGE0		15÷1200	PTFE	• Steel • Steel, hardchromed • Cast iron	• Mobile hydraulics • Standard cylinders

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Aluminium extruding press

Cold laminating plant

Static seals

Item code	Profiles	Dim. range [mm]	Materials	P [bar]	S [m/s]	T [°C]	Applications
O-RINGS		1 ÷ 1800	NBR EPDM VMQ HNBR FKM FFKM	200	0,5	-30 ÷ 120 -40 ÷ 150 -50 ÷ 230 -30 ÷ 160 -20 ÷ 230 -15 ÷ 315	Static or dynamic applications
Q-RINGS		1 ÷ 600	NBR FKM	400	0,5	-30 ÷ 120 -10 ÷ 200	Static or dynamic applications
BACK-UP RINGS	 BKS – ENDLESS	2 ÷ 1000	PTFE	2500	0,5	-50 ÷ 200	• Injection moulding machines • machine tools • injection moulding presses • forging presses • extruding presses • excavators • agricultural machines • valves for hydraulic circuits
	 BKC - SPLIT		PTFE + Glass MoS_2			-50 ÷ 200	
	 BK – SPIRAL FORM		PTFE + Glass			-50 ÷ 200	
	 PK - PARBAK		PTFE PTFE + carbon Special thermoplastic material NBR 90 Shore A			-30 ÷ 120	
BS BONDED SEALS		2.5 ÷ 125	NBR Carbon steel	1000		-30 ÷ 120	• Flanges • Plates • Engines • Valves • cylinders
DIN 7603		4 ÷ 90	Copper Aluminium Asbestos free				Screw connection in engine blocks and cylinder heads, in all hydraulic plants

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
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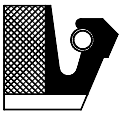
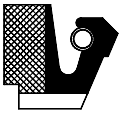
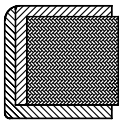
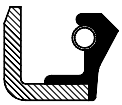
Hydraulic cylinders - product overview

Radial shaft seals

Item code	Profiles	Dim. range [mm]	Materials		P [bar]	S [m/s]	T [°C]	Applications
GTR	G35	10 ÷ 2000	NBR + FABRIC FKM + FABRIC HNBR + FABRIC VMQ + FABRIC		0,5	20	Max 130 Max 220 Max 150 Max 180	• iron and steel plants • shipbuilding industry • wind power applications • paper industry • hydropower industry • mining industry • cement mills
	 G36	10 ÷ 2000	NBR + FABRIC FKM + FABRIC HNBR + FABRIC VMQ + FABRIC		0,5	20	Max 130 Max 220 Max 150 Max 180	
	 G37	10 ÷ 2000	NBR + FABRIC FKM + FABRIC HNBR + FABRIC VMQ + FABRIC		0,5	20	Max 130 Max 220 Max 150 Max 180	
$R_{GR/E}$ - $R_{GR/I}$		10 ÷ 800	Oil seal O-ring	PTFE + glass + MoS2 PTFE + carbon PTFE + bronze NBR FKM	0,5	2	-30 ÷ 120 -10 ÷ 200	• Hydraulic cylinders • Presses • Mobile hydraulics • Machine tools
B2/TR		15-2200	Packing Outside layer	Graphite fibre PTFE fibre + graphite Virgin PTFE fibre Carbon steel AISI 304/316	0,5	50	Max 500 Max 280 Max 280	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications
PR2		Max Ø ext 1100	NBR+ steel FKM+ steel HNBR+ steel SIL (VMQ) + steel ACM+ steel EPDM+ steel		0,5	20	-30 ÷ 100 -30 ÷ 200 -30 ÷ 140 -50 ÷ 200 -10 ÷ 150 -45 ÷150	General rotary applications
PR13								
PR1								
C64D		Max Ø ext 1100	NBR + steel FPM + steel SIL + steel		0,5	25 35 35	-20 ÷ 120 -20 ÷ 220 -60 ÷ 120	• Hydraulic cylinders • injection moulding presses • forging presses • extruding presses • Heavy duty applications

The pressure and temperature limits during the working steps depend on several factors and are not valid simultaneously.
For this reason the data stated in this table are only to be taken as indicative.

Rotary Systems - product overview

Front Seals

Item code	Profile	Dim. range [mm]	Materials	P [bar]	S [m/s]	T [°C]	Applications
VA		Max Ø ext 2000 (moulded)	NBR FKM HNBR SIL (VMQ) EPDM	-	18	-30 ÷ 100 -30 ÷ 200 -30 ÷ 140 -50 ÷ 200 -45 ÷150	General, prevents dirt, dust, water from penetrating, it can be used for sealing grease
VL							
RM							
RME							
AX							
VE							
TF			NBR + steel SIL (VMQ) + steel			-30 ÷ 100 -50 ÷ 200	Hydraulic systems

Materials

Rubber		
Material	Properties	Application
NBR - OLEOLITE® Elastomer butadyene acrylo-nitrile	- optimal mechanical resistance - resistance to wear - bad performance with heat - low resistance to fuels - low resistance to ageing	Resistant to temp. -30 + 120 C° - Hydraulic oils, grease, emulsions, water - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC
FKM Fluorinate elastomer	- good resistance to high and low temperatures - good chemical resistance - bad performance with steam	Resistant to temp. -20 + 200 C° - hydraulic oils, grease, emulsions, water - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD
HNBR Hidrogenated nitrile butadiene rubber	- good mechanical resistance - good resistance to low and high temperatures - good sealing performance with gas - optimal performance with synthetic hydraulic oils - suitable for aliphatic hydrocarbons - not recommended for aromatic hydrocarbons	Resistant to temp. -30 +160°C mineral oils Fire-resistant fluids HFA,HFB,HFC Water and detergents
VMQ Silicone rubber	- good resistance to low and high temperatures - suitable for applications with food and pharmaceutical products - optimal dielectric properties - limited mechanical properties	Bad performance with mineral oils. For other applications it is recommended to contact our technical staff.

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Materials

Ptfe		
Material	Properties	Application
Virgin PTFE POLYTETRAFLUOROETHYLENE	- low friction coefficient - optimal resistance to chemical agents and solvents - optimal dielectric properties - optimal resistance to temperature - FDA approval - low wear resistance - low recovery	Resistant to temp. -30 + 120 C° - Hydraulic oils, grease, emulsions, water - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC
Special PTFE Materials		
PTFE filled with glass	- optimal resistance to wear and optimal antiextrusion properties - FDA approval	- Hydraulic oil, grease, emulsions, water. - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD.
PTFE filled with carbon	- optimal resistance to wear and distorsion - bad dielectric properties	- hydraulic oil, grease, emulsions, water. - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD.
PTFE filled with graphite	- low friction coefficient - optimal heat dispersion properties - good performances in applications with steam	- hydraulic oil, grease, emulsions, water. - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD.
PTFE filled with bronze	- optimal resistance to wear and distorsion - good thermal conductivity - bad dielectric properties - good resistance to chemical agents	- hydraulic oil, grease, emulsions, water. - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD.
PTFE filled with bronze/MoS2	- optimal resistance to wear and optimal anti-extrusion properties - resistance to high pressure	- hydraulic oil, grease, emulsions, water. - Mineral base fluids: HH,HL, HM,HV - Fire-resistant fluids HFA,HFB,HFC, HFD.

Rubber fabric		
	Base Composition	Applications
TENAX	Cotton fabric / NBR sh 75 colour black	Temperature max 120 ° C For hydraulic oil – water emulsions fluids HFA,HFB, HFC
TENAX - HD	Cotton fabric / NBR sh 90 - Colour: black, brown, blue - FDA approval available - Special version for heavy-duty applications	Temperature max 120 ° C For hydraulic oil – water emulsions fluids HFA,HFB, HFC
TENAX FKM	Cotton fabric / FKM sh 75 Colour black	Temperature max 180 ° C Hot oil – low pressure steam – acids – alkali – solvents – phosphoric esthers, fluids HFA,HFB, HFC,HFD
TENAX FKM/Kevlar®	Kevlar ® Aramidic fabric / FKM sh 75 Colour black	Temperature max 200 ° C Special version for heavy-duty applications
TENAX HNBR	Cotton fabric / HNBR sh 75 Colour black	Temperature max 150 °C Special version for heavy-duty applications
TENAX VMQ	Cotton fabric / silicone VMQ sh 75 Colour red	Temperature max 180 °C
TENAX PTFE	Cotton fabric / NBR sh 75 Colour white (NBR with PTFE content)	Temperature max 120 ° C

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